THE AMERICAN SCHOLAR

Vol. 11 Summer · 1942 No. 3

Editorial	*Marjorie H. Nicolson*
Myths about the Peace Treaties of 1919–20	*Clarence A. Berdahl*
International Utopias	*Zechariah Chafee, Jr.*
Science and the Future	*David Dietz*
Cross-Fertilization in Letters	*B. W. Huebsch*
The Art of the Actor as a Psychological Problem	*Kurt Koffka*
A Letter to a Young American, A *Poem*	*Charles Edward Eaton*
Newton and the Modern World	*I. Bernard Cohen*
Sour Notes in National Harmony	*George Fort Milton*
Electricity and the Brain	*Hudson Hoagland*
Can We Educate for Democracy?	*Christian Gauss*
In the Workshop	
Refugee Scholars in the United States	*Herbert Solow*

Published Quarterly for General Circulation by

P H I · B E T A · K A P P A

$2.00 a year 50 cents a copy

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

For out of the old fieldes, as men saithe,
Cometh al this new corne fro yere to yere;
And out of old bookes, in good faithe,
Cometh al this new science that men lere.

—Chaucer

1942 is a far cry from Chaucer's 14th century, but we could not help thinking of

THE AMERICAN SCHOLAR

when we ran across this expression of the harmony of the universe and the unity of knowledge.

It is just this relation between "old bookes" and "new science," between the humanities and sciences, that together are constantly increasing man's ability to live the good life, which each issue of THE AMERICAN SCHOLAR represents.

Does that "increasing man's ability to live the good life" seem paradoxical at a time when life seems to contain more of destruction than of the search for truth, goodness and beauty? Nevertheless, our greatest strength against the superstition and barbaric violence that would enslave man lies in the firm belief in the integrity of the free human mind and the value of human cooperation—the same belief which has been the foundation of an expanding mental and physical world as our scientists and humanists have pushed ever outward the boundaries of knowledge.

Like the rest of America, THE AMERICAN SCHOLAR is now on a war footing, but its editors believe adherence to this ideal necessitates not only the presentation of basic questions involved in the war, but also the continuance of the policy of bringing to your attention the significance of important new developments in all fields. The former may help us understand our immediate struggle, but the latter will give us the key to our world after the war.

If you believe in the idea behind THE SCHOLAR, help us reach others who may be interested. Speak to your friends. Lend them your copy or, better still, send us their names and we'll mail them a sample copy so they can see what we are trying to do.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

SUMMER · 1942 VOLUME 11 · No. 3

THE AMERICAN SCHOLAR

PHI · BETA · KAPPA

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The American Scholar

Summer · 1942 Vol. 11 · No. 3

Contents

Editorial	Marjorie H. Nicholson	259
Myths about the Peace Treaties of 1919–20	Clarence A. Berdahl	261
International Utopias	Zechariah Chafee, Jr.	275
Science and the Future	David Dietz	292
Cross-Fertilization in Letters	B. W. Huebsch	304
The Art of the Actor as a Psychological Problem	Kurt Koffka	315
A Letter to a Young American, *A Poem*	Charles Edward Eaton	326
Newton and the Modern World	I. Bernard Cohen	328
Sour Notes in National Harmony, *Fort Sumter and Pearl Harbor*	George Fort Milton	339
Electricity and the Brain	Hudson Hoagland	351
Can We Educate for Democracy?	Christian Gauss	359

In the Workshop

Refugee Scholars in the United States	Herbert Solow	374

Discussion

Reflective Commitment Attainable by Few	John H. Ware, Jr.	379
Reflective Commitment: Ideal for All	Theodore M. Greene	380
Vested Interests, Beware!	Austin Johnson	381

About Our Authors 383

Indexed in the *Readers' Guide to Periodical Literature*

THE AMERICAN SCHOLAR is published four times a year, December, March, June and October, by the United Chapters of Phi Beta Kappa. The annual subscription is $2 (foreign, $2.50). Publication office, Federal and Nineteenth Streets, Camden, New Jersey. Editorial office, 12 East 44 Street, New York, N. Y. Entered as second-class matter at the Post Office at Camden, New Jersey, under the act of March 3, 1879. Printed in the United States of America. Copyright 1942, by the United Chapters of Phi Beta Kappa. Volume 11, No. 3.

NOTE—Authors who wish manuscripts returned in case publication is not feasible should attach sufficient postage.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

THE EDITORIAL BOARD

Ruth Benedict	Henry Hazlitt	Burton E. Livingston
Crane Brinton	Will David Howe	William Allan Neilson
Irwin Edman	Alvin Johnson	Harlow Shapley
Christian Gauss	James M. Landis	Irita Van Doren

William Allison Shimer, *Editor*

Ruth E. Campbell, *Associate Editor*

Irene Blayzor, *Assistant Editor*

Marjorie Hope Nicolson, *Consulting Editor*

Editorial

Any editor, when he surveys his offerings to the public, finds himself wondering with a certain wistfulness: "What, if anything, of this will live a month, a year, a generation?" And yet if future historians return to visit these glimpses of the moon we call America, and if they should happen to use this periodical of ours as one of their "documents" in an attempt to understand this period, would they not find in these pages much that is indicative of the mood and attitude of 1942, much that would aid them in discovering the climate of opinion in America some six months after entry into this war?

The future historian will discover here America's interest in the past as well as in the present. He will find that the intelligent American, concerned as he was with the war, still found time for thought about science, literature, psychology, even acting. The American of 1942 was profoundly interested in the infiltration of foreign scholars into America, and the debt those scholars owed—and paid—to American culture. But, the historian will find, that for all our interest in the present, we in America today are more interested in the future. This group of essays, drawn from diverse authors, shows conclusively the common concern of intelligent Americans in a common future—an international future, in which petty jealousies will be forgotten in a desire for the common good of humanity.

Any editor might be forgiven for wishing that these articles might live beyond the month and year in which they are published. Yet I should like to suggest that, among all these valuable and thoughtful pieces of writing, one slight and anonymous letter which is published in Mr. Chafee's "International Utopias" has in it elements of greatness which deserve to survive to posterity. The letter was written by a

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

British girl, who had lived for two years in constant danger from air raids; when she wrote, she was commenting upon an American broadcast, surveying the temper of America in the first week of its entry into the war. For a moment she rose above the present to incorporate in her letter something which is eternal, and something which deserves to be treasured up to a life beyond life. You will read it in its entirety, but part of it will bear reprinting here:

> But there is, I think, yet another quality of mind in addition to courage and resolution and self-sacrifice that is even harder to acquire and maintain, but which is essential if the war and peace are to be won. There is a certain gentleness—the negation of spite and anger or antipathy to the German people. . . . To be dignified in victory is very hard. How I hope that both Britain and the United States will maintain till the end of the war the quiet sanity of Athens after Salamis, the reasoned strength and belief in the future.

"The reasoned strength and belief in the future": this is the clue to the essential unity of these apparently disparate articles. There is almost no one of our contributors who does not believe that the future is ours if we will make it so. Compared with the easy optimism of the last war, we find constant realization of the difficulty of victory. Back of this lies the realization of all our writers that peace has her victories no less renowned than war. Whether we are considering the future of education, the future of science, the future of cross-fertilized literature, or the possible utopias which must spring from realism not fantasy, we in America in 1942 are aware of our responsibility not only to our country, but to the world.

I should like to think that the mood of the British girl's letter will be ours when victory is won. In it there is no hatred, no self-conscious aggrandizement, no blowing of trumpets, no false hysteria. We know that we are fighting a war less for ourselves than for posterity. We are fighting for the kind of "hard liberty" which was ours in early days, and which must be won again in blood and sweat and tears. But when victory comes, we shall be glad that we were, for the first time in the history of the world, fighting *for* our enemies rather than against them. We shall be glad to remember that our fight was not with whole nations, but only with certain powers which temporarily took from people who are our neighbors and our friends and our fellow-men, the possibility of self-realization. When victory comes, let us remember the words of this unknown British girl. "Quiet sanity—reasoned strength and belief in the future."

MARJORIE H. NICOLSON

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Myths about the Peace Treaties of 1919–1920

CLARENCE A. BERDAHL

IN HIS address to Congress on January 6, 1942 President Roosevelt summarized our objectives in this war as smashing the militaristic regimes of the war lords, liberating the subjugated nations and securing the four freedoms everywhere in the world. He went on to say that this time we should not be satisfied merely to gain these objectives and then call it a day:

> I know that I speak for the American people and I have good reason to believe that I speak also for all the other peoples that fight with us when I say that this time we are determined not only to win the war but also to maintain the security of the peace that will follow.

Prime Minister Churchill in his notable address of December 26, 1941 also pointed out to Congress the necessity of winning the peace as well as the war and most eloquently drove home the fact that this war need not have occurred at all had the peace-loving nations worked together during the years since the last World War. He bluntly reminded Congress:

> Five or six years ago it would have been easy without shedding a drop of blood for the United States and Great Britain to have insisted on the fulfillment of the disarmament clauses of the treaties which Germany signed after the Great War. And that would also have been the opportunity for assuring to the Germans those materials, those raw materials, which we declared in the Atlantic Charter should not be denied to any nation, victor or vanquished. The chance has passed. It is gone. Prodigious hammer strokes have been needed to bring us together again.

These sentiments are now almost universally applauded; it has again and at long last become respectable to discuss and even to favor a League of Nations or something stronger and still

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

more derogatory of our precious national sovereignty; Americans in increasing numbers are now asking why it was that the United States failed to go along with the League of Nations established after the last War, and they seem to assume, almost as a matter of course, that we will go along this time. Our failure to go along the last time is commonly attributed, in the first place, to the association of the League with the "harsh and iniquitous" Treaty of Versailles and the consequent repudiation of that Treaty by the Senate because of its harshness and injustice; and secondly, to President Wilson's stubborn idealism which was, it is said, ahead of the times—the people were not educated to a League of Nations, they did not understand the League, they were suspicious of the League and hence they rejected the League. If these things are so, then one kind of strategy would seem to be required to prevent another American withdrawal from the effort to organize a permanent peace; if they are not so, another kind of strategy would seem to be required. If, therefore, we want to win the peace as well as the war, and we believe that a continued association of the United States with the peace is necessary if the peace is this time to be won, we should reexamine these assumptions in the light of what actually happened. Such a reexamination of the facts and circumstances reveals that both assumptions are mere assumptions, based upon a misreading and misinterpretation of a somewhat complex situation: they are based on myths, pure and simple.

It is true of course that the United States Senate did not ratify the Treaty of Versailles or any of the other peace treaties negotiated at Paris and signed by the American delegation (the Treaties of St. Germain with Austria, Trianon with Hungary, Neuilly with Bulgaria). But the complexities of our constitutional and parliamentary practices are such that failure to ratify does not necessarily, and did not in this case, mean rejection. It should be recalled that when President Wilson laid these Treaties before the Senate on July 10, 1919 the Senate did not

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

divide on the simple issue of pro or con. Instead four distinct groups of Senators were formed, in line with their attitudes toward ratification: (1) a thick-and-thin pro-Treaty group composed of 43 Wilsonian Democrats and one Republican (McCumber of North Dakota) who were prepared to support ratification without any qualifications whatever; (2) the so-called "mild reservationists," consisting of about fifteen Republicans including such Senators as Kellogg of Minnesota (later Secretary of State), Hale of Maine and Colt of Rhode Island (conservatives), Kenyon of Iowa and Lenroot of Wisconsin (Middle-Western liberals or progressives) and McNary of Oregon (now the Republican Floor Leader in the Senate) who were warmly for the Treaty but hoped for reservations of a mild character; (3) the "strong reservationists," a group of about twenty Republicans, led by Lodge of Massachusetts (then the Republican Floor Leader), who also favored ratification but with important or "strong" reservations; and (4) the "irreconcilables" or "bitter-enders," about a dozen Republicans and three Democrats, led by Senator Borah, who were definitely opposed to ratification under any conditions.

It is important to note that the first three groups were all for the Treaty, although with differing degrees of enthusiasm; that the so-called "reservationists," whether mild or strong, were actually not against the Treaty but only for reservations of some sort; that there were altogether 75 or 80 Senators out of 96, who favored ratification and who would have so voted could the issue of ratification or rejection have been squarely formulated before it was beclouded by politics and parliamentary confusion; that the difficulty with respect to these three-pro-Treaty groups was therefore not so much one of principle as of strategy—that is, of finding a formula which would make it possible for each to vote for the Treaty it actually favored and yet at the same time secure some kind of political advantage.

This is not to say that strategy is not important; it proved to be terribly important in this case, as it will be again if the issue is no more clearly understood than it was then. But the fact

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

remains that in the end the Treaty of Versailles failed of ratification not because a constitutional majority desired to reject the Treaty but because the different groups in favor of the Treaty were unable to agree on the conditions of ratification, did not understand the implications of their own position and were to the end still thinking in terms of strategy rather than in terms of the substantive results of their action. This is indicated by the long series of formal amendments voted down, after which reservations to about the same effect were adopted. The distinction in effect between these forms of action is not absolutely clear. Amendments, however, would have required formal acceptance by the other parties to the Treaty and their adoption by the Senate would have necessitated a virtual renegotiation of the Treaty of Versailles between all the signatory Powers, including Germany (an impossible task in itself, regardless of the acceptability of the amendments themselves). Adoption of amendments would therefore have been rejection of the Treaty. Reservations on the other hand were generally thought to be unilateral or at any rate not to require formal acceptance by the Powers. They need not therefore have prevented our final adhesion to the Treaty itself. In other words Senators, in deciding on reservations rather than amendments, whatever the merits of either in substance and however confusing the distinction might be, did not desire to reject the Treaty but rather were keeping the way open for ratification.

On each occasion, furthermore, when the vote on ratification occurred (November 19, 1919 and March 19, 1920) the Treaty was beaten not by its enemies but by its warmest friends. Ratification was supported by the reservationist Senators—those who were lukewarm about the Treaty—and was opposed by the dozen irreconcilables in combination with the Administration Democrats, the latter group clearly opposing ratification not because they desired to reject the Treaty but because they thought that if they rejected the Treaty under the conditions then attached they could secure its final ratification under more acceptable conditions. In taking this position these friends of

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the Treaty were acting on the advice of President Wilson, who wrote to Senator Hitchcock just before the first vote was taken:

> I sincerely hope that the friends and supporters of the treaty will vote against the Lodge resolution of ratification. I understand that the door will then probably be open for a more genuine resolution of ratification.

He took a similar position before the second vote. As one close student of this treaty fight has put it:

> The strategy of the Administration forces as indicated by the President's letter, and as appraised by the press, was to bring about a double vote on the treaty, with reservations and without them, and from the complete deadlock thus established to work out compromise reservations which both sides could accept.

It is not a question here whether President Wilson and his loyal supporters were right or wrong or whether their strategy was better or worse than that of the Lodge Republicans; it is simply that an analysis of the vote and of the circumstances under which the vote was taken reveals no intention on the part of a constitutional majority of the Senators to reject the Treaty.

When the Senators discovered that in this confusion of political and parliamentary tactics they had actually rejected the Treaty they were appalled by their action and tried to undo it. It is most unusual for the Senate to vote more than once on a matter debated at such length and apparently decided so conclusively as was the Treaty of Versailles. But the first defeat of the Treaty was followed by the immediate adoption, by a vote of more than two to one (63-30), of a motion to reconsider and by the further consideration of the Treaty during the next session of the Senate. Earnest attempts were made, through conferences of a specially chosen bi-partisan committee of pro-Treaty Senators, to work out a compromise. And had it not been for the timidity or the treachery of Senator Lodge in the face of a threat from the irreconcilable Republicans to bolt the Party, these efforts would certainly have succeeded. Even so, although on the first vote, taken in November, ratification was

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

beaten by a substantial majority on each of the particular questions involved (39 ayes, 55 nays; 41 ayes, 51 nays; 38 ayes, 53 nays), on the second vote, taken in March, ratification received an actual majority (49-35) and lacked only seven votes of a constitutional two-thirds majority. At least eight of the twelve Senators not voting were favorable to ratification, while nineteen of those voting against ratification were among the Treaty's most ardent friends—men like Glass of Virginia and the very leader of the pro-Treaty Democrats, Hitchcock of Nebraska. Even then the Senate, obviously unwilling to reject the Treaty it had just voted to reject, showed a disposition to reconsider until an exasperated irreconcilable, Brandegee of Connecticut, shouted, "It seems to be necessary to take several votes on this matter every time it comes up" and complained that Senators had gone home, "thinking that having rejected the Treaty again it was really rejected." Senator Lenroot, a supporter of the Treaty, pointed out the futility of another vote until the closest friends of the Treaty (meaning the Administration Democrats) would vote for and not against ratification. Finally it was agreed to accept Senator Lodge's suggestion that after a year of debate the country was entitled to a rest from the Senate.

Although the first phase of the Treaty fight was over and the result seemed to be the actual, if unwilling and inadvertent, rejection of the Treaty of Versailles it did not remain rejected for long. When the Republican Administration came to power it had to do something about our wars with Germany, Austria and Hungary which were still technically and legally going on since the peace treaties had not been ratified. In July 1921 the Republican Congress passed and President Harding signed a resolution (which had previously been passed but which President Wilson had vetoed), declaring the war with Germany at an end, and at the same time carefully reserving to the United States and its nationals "any and all rights, privileges, indemnities, reparations or advantages, together with the right to enforce the same," to which "it or they" were entitled under the

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Armistice terms, or under the Treaty of Versailles, or under the position of the United States as one of the Principal Allied and Associated Powers. This resolution seemed to suggest that the Treaty of Versailles, although not formally ratified, had not been exactly rejected but was still alive and applicable to the United States. But the question whether peace could actually be secured by a unilateral resolution of Congress was much debated and seriously questioned and evidently troubled the legal mind of Secretary of State Hughes. Finally, on August 25, 1921, the United States signed the separate Treaty of Berlin with Germany and at about the same time the similar Treaties of Vienna and Budapest, with Austria and Hungary respectively. These Treaties were all ratified by the Senate.

Taking the Treaty of Berlin, the separate treaty with Germany, as the example, it may be noted, first, that this Treaty is unique for its brevity. In addition to the preamble, which constitutes by itself almost two thirds of the entire Treaty, there are but three short articles. Inasmuch as the last of these contains merely the formal provisions for ratification and effectiveness there are actually only two articles of substantive character. The entire text of the Treaty was printed in less than two newspaper columns. By contrast the Treaty of Versailles which this Treaty of Berlin replaced includes 440 articles and, as printed by the Carnegie Endowment, makes up a booklet of more than 250 pages.

The Treaty of Berlin is notable, secondly, for being in reality only an "index-treaty," as the *New York Times* aptly called it. Its provisions merely refer to specific provisions of the Treaty of Versailles which are either accepted or rejected as applicable to the United States; and the Treaty of Berlin cannot be read and in any sense understood without a copy of the Treaty of Versailles also at hand—a fact so fully appreciated by the State Department that in the number of the official *Treaty Series* (No. 658) containing the Treaty of Berlin those provisions of the Treaty of Versailles thus ratified and taken over are appended. Whereas the full text of the Treaty of Berlin itself, in

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

both English and German, occupies less than eight pages in this official publication, those portions of the Treaty of Versailles that were also included in order that the Treaty of Berlin might make sense occupy, in the English version only, 113 pages. Through this method of indexing in the Treaty of Berlin approximately two thirds of the Treaty of Versailles was actually ratified by the United States Senate and made applicable to the United States in the fullest legal as well as moral sense. The provisions of the Treaty of Versailles so ratified and taken over include a portion of Part IV (Colonies and Mandates), and all of Parts V (Military, Naval and Air Clauses), VI (Prisoners of War and Graves), VIII (Reparations), IX (Financial Clauses), X (Economic Clauses), XI (Aerial Navigation), XII (Ports, Waterways and Railways), XIV (Guarantees of Execution) and XV (Miscellaneous). The provisions rejected include those portions of Part IV dealing especially with Shantung, and all of Parts I (League of Nations), II (Boundaries), III (Political Clauses for Europe, including the provisions with respect to the Saar and Danzig) and XIII (International Labor Organization). Part VII, dealing with the trial and punishment of the Kaiser and other Germans, was not mentioned in this index and was therefore presumably not ratified.

It is evident from this summary that the provisions of the Treaty of Versailles thus ratified through the Treaty of Berlin included precisely those provisions generally considered the harshest and most iniquitous—those covering colonies, reparations, the other complicated and supposedly burdensome economic and financial arrangements, the responsibility of Germany for the war (the war-guilt clause) and the military occupation of Germany as a guarantee of the Treaty's execution. The provisions not taken over were largely the ameliorating provisions, those setting up the League of Nations and the International Labor Organization (although it might be here remarked that the United States, by joining the International Labor Organization in 1934, virtually ratified Part XIII of the Treaty of Versailles, and by entering into numerous relation-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ships with the League of Nations throughout the past twenty years has rather materially modified its rejection of Part I).

In the light of these facts and circumstances it is simply not true to say that the United States Senate rejected the Treaty of Versailles; it has formally, if indirectly, ratified the largest part of that Treaty. Nor, except in the most technical sense, is the separate Treaty of Berlin actually a separate treaty at all since it is merely the Treaty of Versailles very thinly disguised. But the failure to appreciate this situation led the postwar generations to assume (1) that the United States saw the iniquities of the Treaty of Versailles (which in itself may be a grave overemphasis on the so-called iniquities), therefore rejected that Treaty and substituted the separate treaties which were of course more generous and just; (2) that in consequence we were free of responsibility for the postwar situation in the world whereas Europe, being responsible, might well be left to stew in her own juice. Associated with this false conception of history was the extraordinary cynicism of many of our scholars, by them transmitted to our students, about international aggressions, crimes against civilization and the preservation of peace—a cynicism which often amounted to taking the position that there is nothing that can be done about anything at any time. It does not seem unreasonable to suggest that there might, indeed almost certainly would, have been an entirely different approach to these problems had it been fully appreciated that the United States was as much responsible, legally and morally, as any other Power for doing something about reparations, raw materials, the French invasion of the Ruhr, Hitler's invasion of the Rhineland, Hitler's rearmament of Germany and so on. Those are some of the matters that Prime Minister Churchill rightly suggested could easily have been dealt with without the shedding of a drop of blood had we as well as the British understood our responsibility and acted accordingly in concert with the British and the other responsible peoples.

The second assumption to which I drew attention, that the American people rejected the League of Nations, is equally a

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

myth. I cannot here review in detail the politics of the battle over the League of Nations but a few salient features need to be recalled. First of all, during the course of the last World War the American people became vitally interested in the problem of a league or association of nations of some sort and expressed themselves in no uncertain terms as favoring such a league and the entry of the United States into it. Numerous state legislatures adopted resolutions to this effect; both major political parties, through their national platforms and through the speeches of their candidates and leaders in 1916, became completely committed to a league of nations; practically every group in the United States reflecting important public opinion (such as organized labor, the Chamber of Commerce, the churches, the Federation of Women's Clubs, the American Bar Association) overwhelmingly supported a league. This same support, equally unanimous, was given to the more concrete program of the League to Enforce Peace, whose proposals outlined a league of nations very similar to the League actually established by the Treaty of Versailles. Even Senator Lodge, speaking from the same platform as President Wilson, delivered probably the most eloquent speech of his career in support of that program and Senator Borah, although he may have dissented, had at that time nothing to say in opposition. Secretary of State Lansing, himself never enthusiastic about a league of nations and strongly opposed to the League created at Paris, nevertheless put the situation very well when in 1921 he wrote:

> With popular sentiment overwhelmingly in favor of some sort of world union . . . there was beyond question a demand that out of the great international assembly at Paris there should come some common agency devoted to the prevention of war. To ignore this all-prevalent sentiment would have been to misrepresent the peoples of the civilized world and would have aroused almost universal condemnation and protest.

As to the question whether the American people did not, however, reject the League of Nations actually established, a number of factors need to be taken into consideration. It is true

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

that President Wilson, after the failure to secure ratification of the peace treaties in the Senate, suggested that the election of 1920 be a "great and solemn referendum" on the League of Nations; and Senator Lodge, as the Republican Leader in the Senate, declared for such a political appeal even earlier. Because the League was actively debated during that 1920 campaign it has become traditional to assume that the election of 1920 was such a referendum, and that the voters in that referendum decided against the League. Indeed, the majority of seven million for Mr. Harding is generally translated into a majority of seven million against the League of Nations.

These assumptions have again no basis in fact. The League plank incorporated in the Republican platform of 1920 was ambiguous in its terms but was certainly not a rejection of the League; it was rather a promise of adherence to the League or something like it. The plank was drafted by Elihu Root, so ardent a pro-Leaguer that, as his biographer says, "the Democratic platform really came closer to Root's view." Moreover Mr. Harding himself interpreted this plank on some occasions as a pro-League plank and on other occasions as an anti-League plank—so much so that a distinguished fellow-Republican, Chester H. Rowell, characterized Mr. Harding's position thus:

> One half of the speeches were for the League of Nations if you read them hastily, but if you read them with care every one of them could have been read critically as against the League of Nations. The other half were violent speeches against the League of Nations if you read them carelessly, but if you read them critically every one of them could be interpreted as in favor of the League of Nations.

Obviously this must have been confusing to the voters, but there is no sound reason for assuming that the confusion was necessarily translated by all of them into an anti-League position—especially since toward the end of his campaign Mr. Harding seemed more and more to favor an international league or association of some sort, promising to consult after election with "the best minds" "to the end that we shall have an association of nations for the promotion of international peace."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

It should be recalled, finally, that a large number of the most outstanding and most reputable Republicans, known as warm advocates of the League of Nations, now found it possible to support Mr. Harding and made it plain that they considered support of Mr. Harding equivalent to support of the League of Nations. There was, for example, ex-President Taft, president of the League to Enforce Peace and as ardent a pro-Leaguer as President Wilson himself; there was Herbert Hoover, who in February 1920 said in a public statement that "if the Treaty goes over to the presidential election, then I must vote for the party that stands for the League" and in October, in a campaign speech for Harding at Indianapolis, said:

> The important thing is that the Republican Party has pledged itself by its platform, by the actions of its majority in the Senate, by the repeated statements of Senator Harding, that they undertake to put into living being the principle of an organized association of nations for the preservation of peace. The carrying out of that promise is the test of the entire sincerity, integrity and statesmanship of the Republican party. . . . I do not believe it would fail, or I would not be here at this moment.

Of especial importance is the so-called Statement of the Thirty-One, a public statement issued on October 14, 1920 by 31 eminent Republicans (and adhered to by others later), including Elihu Root, Charles E. Hughes, Herbert Hoover, Henry L. Stimson, George W. Wickersham, President Lowell of Harvard and others of similar distinction. In this Statement these respected gentlemen publicly announced their continued support of the League of Nations, publicly guaranteed the Republican platform and candidate as definitely pro-League and publicly promised that the election of Mr. Harding would be the surest way of joining the League.

Whatever one may think in the light of later events about the judgment or motives of these gentlemen, thousands of voters must have believed them and must have voted accordingly. No one can prove that the League of Nations was expressly approved by the voters in the election of 1920 but neither can it

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

be asserted, as it has been asserted over and over again, that it was rejected. Mr. Root's biographer says, on this point:

> There is certainly nothing in the oft-repeated slogan that the election of 1920 was a referendum on the League in which the American people emphatically repudiated it.

Calvin Coolidge, as the successful Vice-Presidential candidate at that election, put it this way in a post-election statement:

> I doubt if any particular mandate was given at the last election on the question of the League of Nations and if that was the preponderant issue. In the South, where there was decided opposition to the League, they voted the Democratic ticket. And as far as the League of Nations was concerned in the North, the vote was with equal and even greater preponderance in favor of the Republican ticket. Of course, many men voted thus who were in favor of the League. With them it became simply a question of supporting the Republican or Democratic Party. So you can't say that there was a preponderance of votes against the League of Nations.

It is a pity that Mr. Coolidge later forgot his own contemporary judgment on this important matter.

The League of Nations has been discussed in political campaigns since 1920, but never to the same extent and always even more beclouded by other issues. Since 1920 no major political party has made an unequivocal declaration against the League or any form of international association, and certainly no party victorious at the polls has done so. In 1924, in one of the planks included in its platform, the Republican Party seemed to express opposition to the League:

> This government has definitely refused membership in the League of Nations or to assume any obligation under the Covenant of the League. On this we stand.

That apparently explicit statement was, however, qualified by other phrases tending to approve the actual cooperation that had already begun with the League—the government had as a matter of fact assumed obligations under the Covenant—and to promise a continuance of such cooperation in the future. In

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

1928 the "explicit" declaration of 1924 was repeated by the Republicans, but with still more qualification and accompanied by paragraphs boasting of the extent of cooperation with the League which we ought not to join. In 1936 the Republican Party took its most nearly unqualifiedly negative position; but the Party could hardly claim to have been supported by the people at the polls and is probably now doubtful of the wisdom of its own position.

This is all old stuff but seems largely to have been forgotten. One cannot conclude from it that the American people have expressly approved of the League of Nations and of the association of the United States with the League. But it is fair to conclude that neither have the people at any time expressly rejected the League—and it is not certain that they would have rejected it had the issue ever been squarely put before them.

There is also increasing evidence that the people of this country earnestly desire some system of world order, as they clearly did during and immediately after the last World War. The real problem of winning the peace lies not so much with the people as it does with the Senate, or even more, with certain Senators. It is time to recall that the battle of 1918-1920 was largely a parliamentary battle—and that our parliamentary system gives extraordinary power to a few determined men. Just as the pitifully small group of irreconcilables won the parliamentary battle after the last War, so another small group may again win unless we recognize where the danger lies. The strategy must consist not so much in an education of the people, although that is important, as in a determination to see to it that a few individuals in strategic parliamentary position do not again obstruct the peace.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

International Utopias

ZECHARIAH CHAFEE, JR.

LET US conceive of the whole group of civilised nations as being, for intellectual and spiritual purposes, one great confederation, bound to a joint action and working toward a common result; a confederation whose members have a due knowledge both of the past, out of which they all proceed, and of one another. This was the ideal of Goethe, and it is an ideal which will impose itself upon the thoughts of our modern societies more and more.

IN THIS intellectual and spiritual confederation envisaged by Matthew Arnold, we scholars brought to maturity whatever within us is good for others. The Tercentenary of 1936 honored it as well as Harvard. That was its last blossoming. Already the Nazis in Germany and Franco in Spain had begun the long sequence of tragedies which, for the second time in our lives, has torn asunder the Western world of art and science and ideas. For politicians and soldiers let it be a war between groups of nations. For scholars it is a civil war within the single community of thought.

Arnold might assume in 1879 that this intellectual and spiritual confederation could continue in a Europe which was for other purposes divided into irregular compartments; that its unity would not be severed by the barriers of tariff walls and frontier fortresses. The two civil wars, thirty-five and sixty years later, have shown us the falsity of his assumption. National boundaries can impede the free flow of thought more than they do the less sensitive currents of trade. The confederation of the spirit envisaged at Weimar is superseded by the New Order conceived in Berchtesgaden.

And yet the ideal of Goethe and Arnold is one of the chief reasons for my belief that the International Utopias I shall discuss are more than the baseless fabric of a vision. Europe was

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

one in the ways they counted most important. That makes it easier for it to become one again in a greater number of ways. This confederation of the mind and spirit was real and had been real for centuries. There is something there capable of taking on new functions and influencing still more human activities.

A second reason for confidence is economic. I need not indulge in commonplaces about the annihilation of space but merely illustrate what I mean from the war itself. The mobility of the very tools of destruction—airplanes, troop-trains and tanks passing rapidly from Narvik to Crete—shows the growing meaninglessness of the old national boundaries. So does the coordination of factories creating those tools of destruction. However vile the present purposes, Europe is unified industrially as never before. May it not be possible to change the purposes and yet preserve the unity?

As a third witness let me summon Hitler himself. His New Order is a negation of nationalism and racial isolation. It is federation—of a very bad kind surely but yet it is federation, which Europe never had before. Countries formerly separated are now associated as master and slaves—they may later be associated as comrades in a common enterprise. A conqueror sometimes benefits his foes more than himself. Napoleon erased the outworn boundaries of many petty German states but the resulting unified Germany passed to the very dynasty he fought. Similarly, with Hitler wiping out wider boundaries, the agents of a democracy may soon govern as uninterruptedly as Hitler's minions now do.

The instability succeeding the Fall of the Roman Empire has persisted to the present day. Rival nations sliding about over each other have produced periodic earthquakes like sliding strata of rock. This war, in its early stages at least, is only the latest of a series of often senseless struggles, wars of this or that succession whose repercussions used to loose the Indians on our forefathers and have now turned the Japanese upon us. To an American vexed by these constant quarrels they seem likely to continue so long as an area smaller than our own is

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

split among over a dozen independent political units each pulling in a different direction against the others and against the growing strength of the uniform techniques of industry which ignore national boundaries. In a sense Europe has always struggled to reinstate the *pax Romana*. The present may afford Europe the best chance it has ever had to do so—and in a nobler form than either Trajan or Hitler conceived.

In short, with all our misfortunes, a central government for Europe—or even for the world—becomes more practicable than it was in 1919. We do not yet know what spirit will imbue that government. Oddly enough, whichever way you look at it, its spirit seems likely to emanate from Germany. On the one hand the New Order of Hitler, on the other the European confederation dreamed of by Goethe and Immanuel Kant. Or will there be a third course—all the old independent states once more?

May I venture an analogy from a remote part of the world? During the centuries when Greece was falling apart and Rome was expanding, China was divided like modern Europe into many warring states. They fought with traditional etiquette, changed boundaries kaleidoscopically, yet still remained numerous and bellicose. Meanwhile the teachings of Buddha and Confucius spread regardless of boundaries. Meanwhile the irrigation systems so necessary for Chinese intensive agriculture went on expanding, and the interdependence of these canals called for a unified control of all the water in China. Thus political divisions threatened to wreck what should culturally and economically have been a single community. At about the time of the first war between the Romans and the Carthaginians a people called the Ch'in started conquering the rest of China. They did not fight like gentlemen, as other Chinese did. They beheaded their defeated foes. In 221 B.C., just before Hannibal crossed the Alps, they overcame their last antagonists, the Ch'u. At last there was one control of the water system. Bad as the Ch'in were, they had done the job. And just because they were bad they were replaced in fifteen years by the Han dy-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

nasty, the first great rulers of a unified China. Perhaps the Nazis, with even greater cruelty, have accomplished the task of unifying Europe, leaving the way open to more enlightened successors to achieve a good that was never before possible.

The strongest force impelling men to bring about some sort of unification is the unescapable evidence that the alternative is recurring warfare. We know well that science has made war vastly more costly and more destructive and will accelerate this tendency; that it is increasingly unlikely that a war can be localized between two countries—once started, it spreads rapidly over the world. We know that the intervals between wars can be very short unless we do something to make peace effective. It is just as well perhaps that the Second World War came so soon after the First that we cannot ignore this lesson. We know that hereafter, unless a better order be established, even an interval of peace will be almost as bad as war, for after this nobody will dare to refrain from preparing, preparing, preparing, at enormous cost. You can have strong defense or you can have civilization but you cannot have both. Even peace will be a total organization for war, crushing out education, recreation, books, family life. This road leads straight to mass suicide—a feverish peace followed by what Kant described as "A war of extermination, where the process of annihilation would strike both parties at once . . . would bring about perpetual peace in the great graveyard of the human race."

So there is, more than ever before, eagerness to establish something new to prevent this ruin of our race. And the opportunity will come after victory. What shall we do with it? What sort of new world is desired? Several sorts, in fact. Many books and magazine articles have already broached different schemes, although the subject of postwar organization has not yet received much attention in daily newspapers. There is danger that people will get so bewildered by all the overlapping and conflicting proposals that they will throw up their hands in despair and stop thinking about the whole matter. That would be a great misfortune, for an enlightened public

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

opinion on the right use of the victory for which we strive will do much to save us from throwing that victory away.

On the other hand some persons incline to seize on a single scheme and fervently hail it as a cure-all. Fanatical devotion to one plan wearies listeners and alienates those who support other plans. Competing zealots may raise such a clamor that they will silence each other and disgust everyone else. Consequently no features of any international scheme will win general acceptance and we shall be back to some form of the balance of power.

It is therefore wise for Americans to consider more than one scheme, yet not too many. The numerous International Utopias which have been proposed fall rather easily into four main types. The problem of postwar organization may become clearer if I briefly distinguish these four schemes from one another and illustrate each from a book written on its behalf.

At the outset I want to make it plain that all four plans are like the famous recipe for hare soup which began, "First catch your hare." Every International Utopia presupposes the downfall of Hitler and the other Axis rulers.

The first plan for utilizing our victory calls for improvement and strengthening of the League of Nations. Lord Davies' *The Problem of the Twentieth Century* advocates an international police force controlled by the League. Although this book was published in 1934 its reasoning can be adapted to suit the postwar situation. The League would be given its own commanders and general staff to render the police force mobile and effective. Davies favors a force in two parts: first, a central contingent completely under League control; second, quotas furnished by the member states, each of which would direct and keep up its own quota in time of peace. One of the most interesting of his points is that the progress of invention has now made possible a differentiation of weapons. He would arm the central contingent much more powerfully than any national force. Just as local police carry clubs and revolvers while the national army has rifles, so Davies would give all the newer

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and most deadly weapons exclusively to the League—for instance, tanks, poison gas, bombs, submarines and airplanes. Thus equipped the central contingent could master the forces of any member state. It could also hold off outsiders long enough to give time for assembling the national quotas. The central contingent would occupy Palestine and numerous strategic bases throughout the world, where it would manufacture all military aircraft and store other weapons and munitions. The League would also be made stronger by the abolition of the unanimity rule for acts of the Council.

Other writers have advised additional improvements—for example, in the protection of minorities, in the administration of all non-self-governing territories directly by the League rather than as colonies or mandates, and in the establishment of effective machinery for the peaceful change of treaties and boundaries that have become unfair.

A second plan calls for a Union instead of a League. Its leading advocate is Clarence K. Streit, whose *Union Now* was first published in October 1938. The difference between a League and a Union resembles that between the Confederation of thirteen states which fought the Revolution and the National Government set up by our Constitution of 1789. In a League the nation is the unit. Each national government selects its representatives to the central legislature and the executive groups. The central government is financed by contributions from the treasuries of the member nations. If wrongs occur, coercion is exerted on the government of the nation committing the wrong. A Union, on the other hand, makes every human being within it the unit. The citizens of each member-nation elect their representatives to the central legislature; they may perhaps also vote for executive officials. The central body raises its own revenues by imposing taxes directly on citizens. It punishes violations of international law, treaties and awards by going right after the individual violators. The Union legislature enacts laws on all matters of common importance, like defense, money and international trade, and

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Union officials enforce those laws, while the national governments confine themselves to the affairs of their own territories.

When he brought his book out just after Munich, Streit urged that fifteen North Atlantic democracies should immediately join to start the Union, which other countries could join when they qualified themselves by establishing popular self-government and civil liberties. Unhappily nothing now remains of his nucleus of a world government outside the United States and the British Empire, except Switzerland and Sweden. So Streit has published another book, proposing that the United States and the British Empire should at once form a Union.

Some kind of association of the English-speaking countries seems more probable than World Union or the other three schemes I am discussing. Soviet Russia and China, for which Mr. Streit did not allow, are likely to be partners too. Yet however desirable such cooperation of the victors, it is not an International Utopia. An association to enforce the terms of peace upon the vanquished and nurse the occupied countries back to order and prosperity may prove necessary and do its work very well. But though it may last for years it will be only a temporary receivership. No four governments, however enlightened, are wise enough to run the rest of the world altruistically for decades. Sooner or later the conquered and occupied peoples will demand the return of self-government and a share in the process of world-administration. If this demand be denied indefinitely, trouble is bound to arise. Our Congress will weary of paying a fourth of the cost of policing the world. The excluded nations will attempt to band together against the Big Four inside, and the so-called Union will be little more than one alliance over against another. Finally, not all the internationally-minded statesmen live in the United States, the British Empire, Russia and China. Whatever the shortcomings of the League, it revealed such statesmen in France, Germany, Scandinavia, Latin America and elsewhere. The task of international organization is going to be very difficult, and it will be fatal to reject the help of the best men wherever they live.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

An association of victors should therefore be regarded as only a transition to something wider. The problem still remains —what shall this something else be? Even if the four principal Allied Nations form a Union like Streit's at the end of the war, this cannot be forced down the throats of other countries when they do revive. When general participation becomes practicable it will not succeed unless the scheme is reasonably satisfactory to the new members as well as the old. Everything must then be reconsidered. The result may be an expansion of the arrangement among the victors, whether Union or something looser; it may be a strengthened League of Nations; it may be one of the two schemes still to be described.

The difficulties of world federation have led some writers to favor the more modest plan of federating Europe alone. Alfred Bingham, editor of the magazine *Common Sense*, makes such a proposal in his *The United States of Europe*. He advocates a Union like Streit's but with smaller powers over a smaller area—the continent of Europe west of the Vistula. He would omit the United States because we are less prepared to surrender our national sovereignty than are European countries; the Soviet Union because it covers two continents and has different institutions; and the Far East because it has its own problems. "Federations have grown up where there were some fairly obvious common interests and the possibility of a common loyalty." Europe meets these tests. The idea of European unity, though subconscious, has always been part of the European heritage. There is the common background of Greek thought, Roman Law, Christianity, the use of Latin, even the same habits and clothes. Unity was approximated by the French Revolution and Napoleon. Plans for a customs union have been brought forward. European workmen have been joined together by a single song, the "Internationale." Bingham stresses the long establishment of numerous international bodies for mail, telegraphs, health, the navigation of the Danube, copyright, electric power, agriculture, banking and the regulation of such maritime affairs as lighthouses and buoys. These

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

bodies have been called bricks without mortar. They need something vital to draw them together.

Bingham's Union is looser than Streit's. He would not require the internal government of member states to be uniformly democratic; he would wait for dictatorships to alter and meanwhile allow the victims of persecution to migrate freely, taking their property with them. Unlike most postwar planners he does not stress disarmament, for he believes that armaments are a superficial symptom of deeper disorders and that good government will furnish the only genuine protection against civil war within the federation. A revived League of Nations for the world, which he expects to accompany the European Union, will help give security against outside aggression. Although Bingham desires a single economic area, like the United States, for Europe west of Russia, he thinks this impracticable now. So he is reluctant to alter boundaries at present. "New boundaries raise as many problems as they settle. The less tinkering with boundaries the better." Instead he would make them mean as little as possible. The present non-self-governing colonies of European nations would be administered by the Union for the benefit of all concerned, especially the natives. In conclusion Bingham warns us that perfection is not just around the corner. Our own Constitution succeeded only through compromises, political deals and the accidents of personality.

The last book to be considered is very hostile to the views of the other three. It is *Federal Illusion?* by D. N. Pritt, a prominent English lawyer and a Labor member of Parliament. It favors a Socialist Union like that in Russia. Its author points out that federation has taken place successfully in the past only where the member-states already had a great deal in common, as in the United States and Switzerland. So long as the capitalistic system survives, the rich men who really run the various countries will be antagonistic to each other and unwilling to surrender national sovereignty. Moreover, socialist states will not fuse with capitalist states. On the other hand it will be

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

easy to effect a federation consisting only of socialist republics because the people are alike and desire to unite. Russia, the biggest federation on earth, proves this. Her constitution is a much better model, Pritt thinks, than that of the United States which Streit follows so closely. Furthermore war cannot be ended so long as our economic structure remains untouched, for the causes of war are economic. Rich men will go on urging tariffs, money barriers, colonies to exploit, new markets, new sources of raw materials. However, Pritt contends, war is impossible between socialist states. There are no private interests, no colonies. The socialist system of producing what the people need and enabling them to buy it eliminates the whole element of scarcity of markets. Your country is your own market. You produce all you can consume and consume all you can produce. Nobody fights over water when there is no drought.

Pritt accuses Streit's Union of not really being a World Union. It contains just the British Empire, the United States and France, with some satellites and little countries. Too many states are left outside to fight—Russia, China, Japan, half the human race. In short, Pritt calls Streit's Union just a revival of the old Versailles grouping, a smoke-screen for the reactionary war aims of the British and French ruling classes. Abolish ruling classes everywhere and there will be no more conflicts of sentiment or of industrial and commercial interests.

A few remarks of my own may be ventured about these four schemes. I find it easiest to start with Pritt and work backward.

The plan for a Union open only to socialist states seems to me the least promising of all the schemes. To begin with, the U.S.S.R. is the only nation now able to pass the admission test. Consequently great internal changes must take place in Great Britain, Canada, the United States, China, France and several other countries before the new world federation can be formed. Even a European federation must be put off until

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the same drastic process has taken place on a smaller scale. All this offers a gloomy prospect for peace during our lives or our children's lives. The establishment of socialism in Russia was accompanied by a long civil war and followed by a good deal more bloodshed for political and economic reasons. If, as Pritt contends, there are no conflicting interests inside a socialist state, this harmony may not be due to the inherent capacity of such a regime to produce a persuasive unification of human desires but merely to the elimination of everybody who ventures to disagree with the people in power. Similar civil wars and purges may very well occur in the United States and the countries of western Europe before they are fit to form an international socialist Union. Inasmuch as I am one of those who would doubtless be liquidated it takes more self-sacrifice than I possess to view with equanimity this cheerful sequel to World War II. Even if dissentients are allowed to emigrate or slip away they will have to live somewhere, and wherever they go they will tend to increase opposition to the federation. When the longed-for second Armistice has at last arrived will there be no practicable road to world peace except through a long series of violent revolutions, mass exiles and massacres?

Of course the present war may possibly bring about such extensive expropriation of private property that every state will be virtually socialistic when it ends. In that case the nations might be able to slide into a socialist Union without any preliminary turmoil. Even so, it is rash to assume that socialism will automatically end war. Pritt argues that the inhabitants of a socialist state will not be aggressive because their government will produce all they need. This seems inconsistent with the occurrence of several great famines in Russia. Political and economic equality will not produce world-wide geographic equality. Even without rich men there will be rich lands. The inhabitants of a fertile region may decline to stint themselves drastically in order to feed a famine-stricken state, and so the underfed people may surge outward into the golden wheatfields and green pastures of neighboring states.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The mountain sheep are sweeter,
But the valley sheep are fatter;
We therefore deemed it meeter
To carry off the latter.

Even if your government gives you all you want now, this does not prevent you from wanting still more and perhaps from persuading your government to find it beyond the frontiers. The disappearance of capitalism will remove some of the present causes of war but others will still remain. In the present combat between Germany and Russia both sides call themselves socialists—and certainly there is very little opportunity for private profits in either country. Future wars may arise from conflicts of interest between different races or regions, between rice-eaters and meat-eaters, between clever people and plodders.

To adjust such conflicts peaceably we shall need a more complex scheme than that found in the constitution of the U.S.S.R. In spite of Pritt's praise the U.S.S.R. does not offer a close parallel to a federation of Europe or of the world. One of its member states, Russia, contains three quarters of the area of the U.S.S.R. and two thirds of the population. Under such conditions one partner is likely to be predominant and the rest satellites. Even if such a system has worked satisfactorily within the Soviet Union this tells us very little about the probable success of a greatly expanded socialist federation which contains several approximately equal large members. If, therefore, we propose to set up an organization including, say, Great Britain, the Dominions, the United States, Germany, the U.S.S.R., China and Japan, then, even though they may all have become socialistic states, we shall still have to draw on schemes like those of Davies, Streit and Bingham to determine the best form of organization.

Next, should the world unite in some way or other, or only Europe? Pritt's telling objections to a proposal of federalism for the world are much weakened when applied to Europe. Here is a body of countries which for centuries have belonged to an intellectual and spiritual confederation, which form an

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

economic unit whose boundaries have lately become less important. There is sufficient likeness among these countries and sufficient pressure in this crisis to foster a desire for union; sufficient divergence in language and traditions to make them stop short of complete unity in a single superstate.

On the other hand a union of Europe alone presents serious perplexities. Great Britain seems an essential member but what are you going to do with the British Empire? If you bring in Russia, half of Asia comes in too, but her omission leaves her a potential disputer with definite interests in the Baltic and the Balkans. Non-European dependencies ought to be run not by a European but by a world organization if they are to be administered for their natives and their raw materials handled for the benefit of consumers everywhere.

In short, a European union seems feasible; and it will be desirable if it be subsidiary to some sort of world organization.

Finally, League or Union? Here I feel still more cautious but I shall throw out a few ideas for what they are worth. I began my reading with a strong feeling that the League had hopelessly failed and that some kind of World Union was a better way out. The more I have read the more I have found myself swinging toward something based on the League. With all its timidities (which our own Congress can often imitate) and its defects, its record of unspectacular achievement is much more impressive than I had realized. The so-called technical services in particular—health, labor etc.—must not be abandoned. Perhaps they could be merely transferred to Streit's Union but there is more to it than that.

In the first place it is not fair to balance against a League with bad failures a Union with no failures. The Union never existed. We do not know what it would do. My guess is that Streit's Congress might have hesitated about sanctions against Italians in 1935 as much as the Council did and, lacking an international police, have applied them no better. I also surmise that the elected representatives from Italy or Germany in a Congress would have been *alter egos* of Mussolini and Hitler

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

as much as their appointed delegates to Council or Assembly. A dictator can control elections easily, at least if there is no effective federal supervision—and would such supervision have been likely?

Next, the League is a going concern, or at worst was such until Munich. We have something to start from; we know the weak points that must be remedied; the strong points have been operating for two decades. We should be rather slow to junk the League for something entirely new.

Streit argues that just as the American Union was a big step forward from the preceding loose Confederation of thirteen states, so a World Union would be greatly superior to the League of Nations. This parallel is plausible, but is it sound? American conditions in 1787 were far more favorable to the formation of a Union than are world conditions in 1942. Large areas lie outside a common tradition and others have not developed a respect for law as we know it. A looser form of association may be appropriate, at least for some decades.

The failures of the League were not necessarily the result of its structure. It was hampered by causes which may not be repeated. There was its entanglement with a dictated peace—this time we may negotiate, especially if the dictators have been replaced by democratic governments. Then the strains put on the League by events during its early years were terrific. Would the United States have survived if the Dred Scott case, secession, the recent depression and several state dictators like Huey Long had all come within two decades after 1789? The League was obliged to go through all that. Our Union had sixty years to become rooted before the first great strain of 1850. Finally, the League may not have worked because its members did not want very much to make it work. Rappard in his *Quest for Peace* (March 1, 1940) writes:

> The nations which had been at war with each other . . . had never concluded a real peace in that they had never succeeded in regaining each other's confidence. . . . Those who . . . had won the World War and settled the terms of peace were unwilling to prolong those

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

efforts and to exert their influence to insure the maintenance of those terms. . . . The present plight of Europe is due less to the excessive ambitions of the men of 1919 than to the excessive debility of their successors.

It seems possible then that we shall be wise to begin with what we have—the League of Nations. Thus we can use its experience of twenty years with legislative sessions, executive sessions, a judicial tribunal and numerous administrative bodies of high quality. Knowing the mistakes of the League we can tell what to avoid. This may require some drastic changes in the Covenant. Very likely some of these changes may approximate ideas suggested by Streit's Union and other schemes. For example, League finances would be on a sounder basis if the contributions from member states were supplemented by some kind of League tax, for instance, an excise levied on all international movements of goods, money and persons.

Whatever type of organization turns out to be most desirable in the light of future events, I think we ought to apply two broad principles to the postwar situation.

In the first place it is very important to avoid strains during the early years of the new international body. Whatever our impulses, there will be no time for vengeance. The world after the armistice will resemble a town that has to rebuild itself after a flood. Incompetent leaders must be removed but any other sort of punishment will be a luxury we cannot afford. Too much else to do. The lesson of our own Reconstruction Period and of Europe since November 11, 1918 is that when a war is over it ought to be over. Briand's words "*Pour nous, c'est fini*" should be spoken on the day of the armistice and not eight years afterward. What I mean can best be illustrated by a letter from an English girl who has lived for two years in constant danger from air raids. It was written on December 14, 1941:

Last night I heard on the wireless an excellent "American Commentary" by Raymond Gram Swing, which traced the course of American public opinion during this first week. He described the U. S. as a nation at first staggered with rage and shame, but quickly recover-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ing and now steadily determined. But there is, I think, yet another quality of mind in addition to courage and resolution and self-sacrifice that is even harder to acquire and maintain, but which is essential if the war and the peace are to be won. This is a certain gentleness—the negation of spite or anger or antipathy to the German people. I don't know how to describe it. It is well shown in Aeschylus' play *The Persians*, written to celebrate the brilliant victory of democratic Greece over the great totalitarian Persian empire. It contains no noisy self-congratulation or boasting pride, but depicts the sorrow of the relatives of the Persian dead. To be dignified in victory is very hard. How I hope that both Britain and the United States will maintain till the end of the war the quiet sanity of Athens after Salamis, the reasoned strength and belief in the future.

We can also avoid strains if we immediately free economic life after the armistice, thus producing on both sides a feeling of immense relief that the war is ended. This time there must be no food blockade.

Moreover, there must be no raids like those of Vilna and Fiume. No matter what the costs, those in charge of the peace must make everybody realize that fighting has got to stop. Perhaps friction could be lessened by establishing a temporary status quo, say for twenty-five years, with a definite method set up for later adjustments.

Strains can be reduced by the restoration of normal life through rapid reconstruction on a great scale. International understanding may be increased if this reconstruction be carried out cooperatively. For example, if some German workmen go to England to help and vice versa, each visiting group will soon realize that people very much like themselves have suffered in a common disaster. Who will pay for this vast work of reconstruction? The answer is simple though unpalatable. Who pays for the war? For the most part, the people of the United States. I suspect that we must also bear a heavy share of the expense of reconstruction in order to avoid an infinitely greater outlay in preparation against a third World War.

In the second place, no scheme is enough. The spirit is even more essential. Years ago André Siegfried remarked to me that

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the League of Nations lacked *Geist*. It had no personality. To the ordinary man it was just a distant piece of machinery in Geneva. One strong reason for the success of the United States in its early years was the fact that the nation was immediately brought before the eyes of every citizen through federal judges and officials in every state, naval vessels in harbors, flags over post offices, the government stamp on coins. In some similar ways the new international body must become a reality for the common man everywhere. The League should perhaps fly its flag widely and take over a considerable number of everyday things like postage stamps and coinage. The League symbol should be placed on all the great public works built during reconstruction. Its officials and its benefits should be made generally visible. Recreation, a powerful drawing-force, might be sponsored by the League. For instance it might take over all the youth hostels, which formed one of our most hopeful international organizations before the war.

The spirit is all-important. The new international organization requires a desire to make it work as well as a desire to start it. In this respect practically all the books I have read are at fault. They possess little emotional appeal. They lack the quality which shone so clearly in the speeches of Woodrow Wilson. We must make people everywhere want to join a world organization.

Some such organization must come into existence, for the alternative of perpetual defense and repeated total warfare is hideous. Still we must not minimize the difficulties. When the local contractor in the little Maine village where we go for the summer engages workmen from the next village, there is an outcry against the employment of "foreigners." This illustrates the friction which will have to be overcome between inhabitants of different countries and different parts of the world. There is no simple solution. We should be patient and remember that cathedrals are rarely built by a single generation. We must know much—we must hope much.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Science and the Future

DAVID DIETZ

THE greatest paradox in the history of the world is presented by the events of the two decades between 1919 and 1939. To the student of international affairs those twenty years represent the stormy, uncertain and frustrated interlude between the most destructive wars in the record of civilization. But for the student of science the same twenty years constitute the most glorious period in the story of mankind, a time when one triumph followed another in quick succession in every field of science.

The era of modern science, ushered in by Roentgen's discovery of the X ray in 1895, reached its fruition in the years after the first World War. Problems that had baffled students of science since the days of antiquity found their solution then. Scientists pushed farther into the depths of space, farther into the interior of the atom, farther into the riddles of life than ever before. Discoveries of the laboratory were quickly translated into applications that had vast impact upon ways of life. The human voice spanned the world upon the wings of radio. Out of new alloys of steel and aluminum and new plastics, engineers built streamlined trains, transoceanic airplanes, finer automobiles, taller buildings, longer bridges. Chemists created dyes and drugs and synthetic materials that had never existed in nature. Medicine gained new knowledge of hormones and vitamins, made brilliant advances in surgery and new conquests of death with the sulfanilamide drugs.

These amazing results grew out of a mighty program of research in pure and applied science, carried on by the Government, by universities and colleges, both privately endowed and state supported, by the great foundations and other endowed institutions, and by industrial companies—a program estimated

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

to have cost an average of $100,000,000 a year during the twenty years. A particularly significant trend of the period was the growth in the amount of money spent by industry for research. This expanded so rapidly after 1938 that in 1941 it reached the astounding sum of $275,000,000.

Today the great laboratories of America, whether in government institutions, university departments or industrial companies, are devoting most of their energies to aiding the war effort of the United States.

But even in the midst of war, scientists are looking ahead to the years thereafter. President Roosevelt has pointed out that we must win not only the war but also the peace. It is proper, therefore, that we think of the future.

We can make no bigger mistake than to suppose that the future will be merely a magnified and exaggerated picture of the present. Yet it is a mistake that is constantly made. An eminent English scientist, addressing the British Association for the Advancement of Science in 1893, congratulated his fellow scientists upon having lived at the close of the 19th century when, as he thought, the marvelous edifice of science had been completed. He said he pitied the scientists of the future who would have nothing to do but to repeat the old experiments, carrying a determination to five decimal places, perhaps, where previously it had been carried to four only. Two years later, with Roentgen's discovery of the X ray, science embarked upon a road whose very existence was not even suspected in 1893.

Today we must not make the same mistake in our thinking. The future will not consist of bigger cities with bigger traffic jams, taller buildings with more aggravated problems of congestion, faster automobiles with more violent collisions. There will be more to the future than the refinement of present inventions, the solution of present technical difficulties, the amelioration of current social problems. Many researches now in their infancy will make changes in the future as profound as those ushered in by the invention of the steam engine. It is entirely probable that the advance of science will do more to end

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

wars for all time than any clever ingenuity of statesmen and economists in thinking up a new version of the League of Nations.

Therefore in searching for those things in the scientific laboratory which will have the greatest influence upon the future and which for that reason we should be most eager to encourage and support, we must seek those researches most likely to cause changes.

It will not always be easy to pick out the right ones. The story is told that when Faraday was performing those fundamental experiments at the Royal Institution out of which came every electric generator, every electric motor and every electric transformer in existence, he was visited by the Prime Minister of England. "What's the use of all this?" the Prime Minister asked Faraday. "Don't worry, milord," Faraday is said to have replied. "You'll tax it yet."

In my opinion the researches that will influence the future most deeply are those that give promise of a new source of physical power or energy. Consider for a moment the role which sources of energy play in our present civilization. Imagine what would happen if the world was suddenly deprived of the steam engine, the electric motor and the gasoline engine. Every railroad train, airplane and automobile would come to a stop. The wheels of industry would cease turning and our cities would become unlivable.

Today one half of all the physical power generated from coal, water power, and oil throughout the world is created in the United States of America. This one fact explains why America is the "arsenal of democracy" in the present war. Any new source of energy will be of supreme importance to the future; and a cheap and abundant source, equally available in every region of the earth, will change the shape of the future in ways so profound we can only attempt to guess at them.

Seeking such a source of abundant energy, physicists long ago thought of putting the sun to work. It has been calculated that the amount of energy falling upon every square yard of the

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

earth's surface per second when the sun shines is the equivalent of one and a third horsepower.

One of the first suggestions made was to concentrate the sun's heat by means of mirrors upon a steam boiler. Dr. Charles G. Abbot, secretary of the Smithsonian Institution, has been a pioneer in this field. A few years ago he constructed a solar engine which was exhibited at meetings of the American Association for the Advancement of Science, at the Great Lakes Exhibition in Cleveland, and elsewhere. Dr. Abbot's engine has many ingenious features. A parabolic mirror focuses sunlight upon the boiler, which is actually two concentric glass tubes with a vacuum between them. Thus while there is only a slight barrier to the entrance of the sun's radiant energy, there is a considerable one against the loss of heat by atmospheric conduction. Water admitted to the inner tube is changed into steam.

Another method for the utilization of solar energy which seems highly promising to many scientists is the conversion of sunlight into electricity by photoelectric methods. If you are an amateur photographer you may own a light-meter containing a photoelectric cell. Sunlight falling on this cell is turned into electricity which moves the pointer across the instrument's dial. A few years ago on a visit to the Westinghouse Research Laboratories in East Pittsburgh I saw four photoelectric cells, like those used in light-meters, which had been connected to a toy electric motor. When sunlight fell upon the cells enough electricity was generated to run the motor. The research men referred to the motor laughingly as a "one fly-power motor." But as I watched its tiny pulley spin, I was reminded of Faraday and the Prime Minister.

Perhaps the day will come when our houses will be roofed with photoelectric cells instead of shingles and we shall make electricity instead of hay while the sun shines.

It is significant that in 1938 funds totaling about $1,000,000 were given by Dr. Godfrey L. Cabot to Harvard University and the Massachusetts Institute of Technology to investigate the problem of solar energy. The Institute was to

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

concentrate upon the direct utilization of solar energy by means of engines, photoelectric cells and the like, while Harvard was to investigate photosynthesis, the process by which plants utilize solar energy. Among the methods under study at M.I.T. has been the construction of a photogalvanic cell—an electric storage battery which is charged, not by sending an electric current through it but by exposing it to sunlight. The absorbed sunlight brings about chemical changes which charge the battery.

Even more amazing and spectacular in its potentialities than the utilization of solar energy is the release of the energy of the atom. This has long been a favorite topic with novelists and especially with cartoonists who like to toy with the idea that the first success may start an endless series of explosions that will result in the end of the world. Actually the release of atomic energy is no mere dream of science. Physicists have long been doing it on a modest scale. What is needed is a method for unleashing the power bottled up within atoms upon a scale that will make it of practical use.

In 1919 Lord Rutherford achieved the first success in this field. He bombarded thin sheets of metal foil with the rays from radium and discovered that when an alpha particle, shot out of the radium, made a direct hit upon an atom of the foil, subatomic particles were knocked out of the atom and came out with greater energy than those of the bombarding particles. Here was proof that the atom was a storehouse of energy if man could only tap it successfully. But Rutherford's method was not practical. He fired millions of alpha particles of radium at the target before he made one direct hit on an atom.

What were needed were better atomic guns and better atomic marksmanship. Both were forthcoming within a decade with the development of bigger and better atom-smashers, culminating in the Van de Graaff generators and the cyclotrons by which electrical energies of millions of volts can be imparted to subatomic "bullets."

In these experiments of the last ten years it has been found that subatomic particles are sometimes completely annihilated

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and converted into radiant energy. Such a possibility was first suggested by Albert Einstein in 1905, the same year in which he published his special theory of relativity. Amazingly, the experiments completely verified the equation Einstein had written for the occurrence. The great physicist had predicted that the amount of energy obtained would be equal to the mass or amount of matter multiplied by the square of the velocity of light. Since this velocity is very high indeed, his equation indicated that a very small amount of matter would produce a vast amount of energy. And that is now known to be the case. In fact if the atomic energy of a glass of water were released, it would be enough to drive an ocean liner across the Atlantic.

Physicists, however, were beginning to despair of ever finding a successful method of releasing this energy when an astounding discovery was made in the year 1939. It was found that when uranium of a certain atomic weight is bombarded with a type of subatomic bullet known as a slow neutron, the nucleus of the atom splits in two with the release of a far greater amount of energy than was ever expected. Moreover, the atom thus divided releases another neutron which in turn causes another uranium atom to split in two. In other words here is the sort of chain reaction of which physicists had long dreamed—it was only necessary to start the process, much as one might apply a match to a train of gunpowder.

But the particular type of uranium is a rare isotope of uranium having an atomic weight of 235, the so-called U-235 isotope. Ordinary uranium has an atomic weight of 238. U-235 is found in nature mixed with ordinary uranium in such small quantities that physicists of the General Electric Laboratories spent 100 hours separating a millionth of a gram of U-235 from ordinary uranium. At that rate it would take 100,000,000 hours to get one gram of the stuff. Such was the situation when the outbreak of the second World War threw a veil of secrecy over studies of U-235. All that is known is that the physicists of every nation on both sides of the war are working on the problem of U-235.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

But even should a way be found to separate large quantities of U-235 from uranium ores, physicists would not feel that the last word had been said in the realm of atomic energy, for such a separation would mean only that uranium would become a sort of super-petroleum in the world of energy. Physicists look forward to the day when it will be possible to release energy from the atoms of any handy substance.

The changes which would come over the world with the advent of cheap and abundant atomic energy would be enormous. No one would care any longer who owned the coal mines or the oil fields of the globe. Instead of filling the gasoline tank of your auto several times a week with gasoline, you would fill it once a year with "water"; airplanes could make non-stop flights around the earth and stay aloft for months if there was any reason for so doing.

Second in importance to power in this world of ours is the possession of raw materials. The might of America is derived primarily from the fact that it has the world's greatest sources of power, but secondly from the fact that it is the world's greatest producer of minerals. We lead the world in the production of iron, copper, lead, zinc, aluminum, phosphates, gypsum and sulphur.

But actually the world's greatest reservoir of minerals is the ocean. Sea water is not ordinary salt water. It contains all the chemical elements in existence, even silver and gold, although the silver is present only to the extent of twenty parts per million and the gold to the extent of three parts per billion. Mining the ocean is not so wild an idea as it may at first sound; it is already being accomplished.

The chances are that the ethyl gasoline in your automobile was made with bromine mined from the ocean. By a relatively simple chemical process bromine is extracted from sea water pumped through the plants of the Ethyl-Dow Chemical Company at Kure Beach, near Wilmington, North Carolina. During the course of a year, the two giant, electrically-driven, centrifugal pumps lift about a square mile of ocean, 80 feet deep, into

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the towers of the Ethyl-Dow plant at Kure Beach. Chemists of the plant calculate that while they extract the bromine out of that volume of sea water they miss about $96,370,460 worth of mineral wealth. Although gold and silver appeal to our imagination, a far greater volume of wealth—consisting of sodium chloride, epsom salts, calcium chloride, potassium chloride, aluminum, magnesium, strontium carbonate, iron, copper and iodine—is in that sea water.

During 1941 a number of plants for the extraction of magnesium from sea water were placed in operation. It has been estimated that there are 4,500,000 tons of magnesium in every cubic mile of sea water. Processes are known for the extraction of gold also, but unlike those for bromine and magnesium they are so expensive as to be commercially impractical. But it is plain that a beginning has been made.

Changes in the future, however, will not be caused entirely by our ability to control our environment. Control of man himself will play an equally important part. The biologist, the biochemist, the psychologist and the psychiatrist have quite as much to offer for the future as the physicist and the chemist. New knowledge of physiological processes, of the role of hormones in the human body, of the effects of vitamins and of the workings of the human mind will assume increasingly important roles in the world.

We are just beginning to understand the functions of the hormones, those powerful chemical substances secreted by the ductless glands of the body. We know, for example, that the tiny amount of thyroxin manufactured by the thyroid glands spells the difference between exultant life and living death. Sometimes a child is born with a diseased thyroid that fails to produce thyroxin. Such an unfortunate infant, known to medical science as a cretin, is a grotesque and degenerate caricature of normal childhood. He remains stunted in stature, has sleepy eyes, clumsy hands, weak muscles, and ill-proportioned features. His mind is as warped as his body. But the modern medical man can work a miracle by feeding thyroid extract to the

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

child suffering from cretinism. At once the child's body resumes its growth, his muscles become strong, his features normal, his mind clear.

Each new extension of our knowledge in the field of endocrinology paves the way for new medical advances. Perhaps the day is coming when we can carry our successes in this field beyond the mere task of correcting pathological defects and into the field of constructive achievement; when it will be possible to make a hormone survey of the growing child. A few drops of his blood, sent to the laboratory for analysis, may reveal far more about the child than any present-day method. Perhaps by that time the physician will also possess sufficient knowledge to act upon what the analysis reveals. Perhaps the muscles of the strongest child are the rightful heritage of every child, the keenest brain the birthright of every infant. It may be that the genius that makes a Yehudi Menuhin or a chess marvel of an eight year old boy lurks within every child. It may be that every human being is like an automobile engine that is not running smoothly; perhaps tiny adjustments, if we knew how to make them, would open up the potentiality of genius for every child. Perhaps the hope is extravagant, but there seems every reason to believe that the time is coming when far more will be accomplished to insure stronger bodies, healthier nerves, stabler dispositions and keener minds than is dreamed of now.

The field of vitamins may prove as important as the field of hormones. We know a great deal today about the vitamin deficiency diseases but we have yet to discover what can be done on the positive side with vitamins. In time we should be able not merely to prevent deficiency diseases, but by adequate control of the diet to make for buoyant and radiant health. Dr. Roger J. Williams, who recently shared the Chandler Medal of Columbia University with his brother, Dr. R. R. Williams, for important researches in the vitamin field, suggests the possibility of creating new synthetic compounds based on vitamins. Such substances may prove more powerful than the vitamins in nature in conquering disease and improving health.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Few wonders of the 20th century have surpassed the miracle of the sulfonamide drugs. Five are now in general use, sulfanilamide, sulfapyridine, sulfathiazole, sulfadiazine and sulfaguanidine. But more than a thousand derivatives of sulfanilamide are being tested. Medical men are seeking the "magic bullet" of which Dr. Paul Ehrlich, the creator of salvarsan, dreamed—the chemical substance that without harming human tissues would destroy all germs.

The diseases of old age are an important field of study. Statisticians tell us they are on the increase. This is largely the result of our success in dealing with the contagions of childhood. Chief among the diseases of old age are those following high blood pressure—heart disease, kidney disease and cerebral hemorrhage. Together they cause one third of all the deaths in the United States.

Dr. Harry Goldblatt is responsible for one of the greatest discoveries of the 20th century. He demonstrated that high blood pressure (or "essential hypertension" as the medical man calls it) has its beginnings in renal ischemia, a reduction in the blood supply to the kidneys. Thanks to Dr. Goldblatt we now know how to tackle the problem of high blood pressure. Its conquest would be a great achievement for the human race, for today the diseases that follow it constantly strike down men and women at the very peak of their intellectual power and their greatest usefulness to society.

From the fields of psychology and psychiatry we may expect advances in the future paralleling those in the fields of physiology and medicine. We may anticipate likewise important advances in those fields which influence the mind by enlarging our understanding of the universe in which we live and thus opening new intellectual horizons. Astronomy and cosmogony, one feels certain, will advance swiftly in many directions.

I have tried to outline some of the more spectacular advances which may be expected in the future. Obviously there will be many more. We should bear in mind also that some of the most

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

important changes may arise from researches that in themselves appear to have no such objectives in view. For example many American scientists are convinced we need to pay more attention to the development of applied mathematics in this country. In itself a subject with little popular appeal, it may be the road to some of the most momentous achievements of the future.

It is true that a brilliant, creative mind may appear anywhere and almost single-handed open up new vistas for the human race. But by and large it does not happen that way. Advances come in fields that are consciously developed and explored. No one would detract from the glory of individual workers in the International Health Division of the Rockefeller Foundation; but their successes were made possible by the Foundation, which adopted a broad program and gave it adequate financial support. Similarly rapid advances in American investigations of the structure of the atom were made possible by the policy of the National Academy of Sciences in awarding and supporting fellowships in this field.

Scientists are aware of the importance of adequate financial support for the scientific development of the future. They are doing a number of things to assure it. One of the most promising of these assurances is the National Science Fund, created by the National Academy of Sciences as a national clearing-house for advice on how to give wisely and effectively in support of science. Serving as directors of this instrument for the financing of scientific research are a group of the nation's leading scientists and a dozen distinguished laymen. Through gifts and bequests to the Fund it is hoped that many individuals, wealthy or in modest circumstances, will share in endowing scientific research. The directors will then undertake to see that the Fund's income is used in the wisest possible fashion.

One of the duties of the directors, therefore, is the task of determining those long-range projects which deserve the support of the nation. In this connection the Fund recently sent a questionnaire to 127 of the leading scientists of the United

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

States, listing eleven possible fields of study and asking the scientists to evaluate those they regarded as most important for the future by marking first, second and third choices and by adding suggestions of their own.

As this is being written, replies have been received from 78 scientists, and through the kindness of the National Science Fund I have been able to inspect these answers. This preliminary analysis shows that studies dealing with man himself, namely human behavior, human biology, and medical problems, received the greatest number of first choice votes. The study of future sources of energy ranks high as a second and third choice.

But to me, more important than any rating given various subjects by the scientists taking part in this poll is the fundamental attitude shown by all the replies. In none of them do I find any note of pessimism, any despondency, any fear of the days to come. They do not expect the collapse of civilization. They take it for granted that this war will end in victory for the United States and its Allies and that the United Nations will deal successfully with the problems of the peace table. They vision the continued progress of the forces of learning and culture against the frontiers of the unknown. To me this is the important fact: science faces the future with courage, with hope and with faith, looking forward to the day when man may continue his journey toward a healthier, happier and finer world.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Cross-Fertilization in Letters

B. W. HUEBSCH

Adapted from an address delivered before the New York Library Association

IT IS always difficult to state with definiteness the date of beginning of a movement with which we are associated. It is simple enough for the historian, for he is not agitated by the events that he records; he pieces the past together as if it were a jigsaw puzzle and if everything doesn't click he supplies a bit of romance that takes the place of truth until a later research worker happens on what really occurred. At this date it is possible for us to label an era the "purple 'nineties," we have the Transcendentalist epoch nicely bounded in time and, as my friend Irwin Edman says, "The Middle Ages were invented in the 18th century."

In today's world of books we find ourselves conscious of translated works in unusual numbers and, what is more impressive, conscious of potent cultural elements that seem new to us. We are not sure how or when this condition set in; we say tentatively "the Nazi regime" and after a moment's thought "the World War" and let it go at that.

Will it not prove on reflection, first, that it is merely the momentary acceleration of the tide of translated books that leads us to regard the tendency as a new thing and, second, that this movement, unlike those before cited, is a continuing thing whose origin is in the uncharted past and whose end lies in infinity? To regard the present increase in books transferred to us from alien lands as a 20th-century phenomenon is as mistaken as it was for the people of Moody and Sankey's generation or those of T. DeWitt Talmage's or Billy Sunday's to believe that those revivalists were ushering in a new religious day.

That the arts ebb and flow and that they have their seismic disturbances which become manifest in tidal waves cannot be

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

gainsaid; the ages of greatness in all arts prove the prodigality, as also the continuity, of natural processes. "There is no new thing under the sun"—not even the current wealth of European books with American imprints.

A search will reveal that translators and publishers have always tried to keep abreast of European books and that not only authors worthy of international audiences have been accorded English versions; we have given a hearing to many second-raters. True, we may have been slow, but the rapidity today may be ascribed in part to the improvement in communications, in part to the closer relations with Europe since the Great War, and in part to the stimulus of competition among publishers. A factor not to be overlooked is the new immigration, unprecedentedly high in character, far smaller than is generally thought.

It is necessary to take a long-range view of the interchange of literatures and of the cultures they represent. True, the first World War brought forth some arresting novels from Germany, France and elsewhere, but it is doubtful that these, in the aggregate, tended to create closer understanding between us and the countries in which they originated. Without detracting from their value it may be said that their contribution to essential culture is small; in the perspective of time, in the evaluation of increment of thought, they tend to disappear. One interesting thing about the successful war books is that the best of them are founded in disgust or dissatisfaction with war. Has there ever been a valuable literary production that extolled war?

The exchange of letters—the translation of books into other languages—like the exchange of scholars is an ancient procedure. The land that depends solely on indigenous writing has no standing in the larger world of culture; the great books all come from lands that have ever drawn on foreign sources; in the days before printing became common the international seed was spread by itinerant scholars, by troubadours, by manuscripts. Every language owes a debt to every other. This reliance on influences from abroad does not imply a material change in character but rather the strength that comes from grafting—

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

not a new species but a greater potentiality. Schumann could raise the Marseillaise to a new power by incorporating the melody in his setting of Heine's "Two Grenadiers."

Events combine to recreate interest in foreign literature and the cumulative effect deceives us into believing that there is profound alteration in our attitudes and views. The translation of Nietzsche, for example, had its powerful effect. The cult of Bergson, the contribution of Freud, the interpretation of Spengler, the popular versions of the Greek dramas by Gilbert Murray —to choose only a few random works among the many available—all of them presented within 30 or 40 years, are impressive enough to produce the conviction that we have entered on a cosmopolitan era. In point of fact these contributions can be paralleled, *mutatis mutandis*, in every land of culture in every age. And it is only because of such absorption of books from other peoples that they are lands of culture. The sources of Shakespeare, not to delve further into the past, illustrate how we can make the alien our own and how the alien complements and completes us. So susceptible to outside influences are we that even a clever hoax can do the trick. Years ago a little volume called *Letters from a Chinese Official* provided a season's table talk and turned many minds to Eastern life and thought. Its value for our education was no smaller for learning that no Chinese philosopher but G. Lowes Dickinson had written it.

In the hundred or more years that have passed since Sidney Smith's inquiry, "Who reads an American book?" the picture has changed. Not only the British but the Continentals read American books; indeed, the liking for our product has increased markedly, especially in England in the past few decades, so that today we probably export as many titles to England as we import from it. This change synchronizes with the waning quality of English fiction and the rise of a dozen young Americans but there is no ground for prophesying that the present movement will not be reversed. It is almost certain that the call for fundamental changes in old England, the stirrings for democracy, broadly interpreted, will stimulate the new generation

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

to emulate their great ancestors in the traditional home of the novel. Nor are there many signs that the new vein that began to be worked in this country after 1900 is yielding pay dirt as generously as before.

If the Reverend Mr. Smith intended to be malicious the joke is on him, for the European taste for American books permits us to export even our "seconds" as well as our prime quality. Perhaps it makes for a completer understanding if they have our bad books as well as our good ones—if we expose ourselves, "wart and all," and are known for what we are.

To speak of "sending" each other our "best" or our "worst" provokes curiosity about the procedure by which these exchanges of ideas in literary form occur. Books achieving popularity in the country of their origin become objects of desire of foreign publishers; likewise any new book by an author of established reputation. Of the latter we need not speak, for publishers gamble in them eagerly. Translation rights are sometimes offered by literary agents working through representatives abroad; sometimes by the publishers of the original edition or by the author himself. The task of selecting books for translation is terrifying, though it narrows down for one or more reasons. We need here consider only the belletristic publisher. Once it becomes known that he is interested in foreign books the four winds blow them to his door; a mysterious means communicates his weakness to writers everywhere. Authors, to judge by the friends who write on their behalf and who offer to translate their books, seem to be the center of a large circle. All of this is flattering to the publisher but bewildering. He finds on his table volumes in Hungarian, Finnish, Romanish, on every conceivable subject, each accompanied by laudatory comment from native critics. Parenthetically, it is of ironical humor that however indifferent we become to printed reviews, knowing how they are written and knowing the reviewers, meeting them at lunch and calling them by their first names, we read with respect the critiques of an unknown penny-a-liner in *Nichi Nichi* or *Az Est*.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The American publisher faces the fact that he is in the first instance a business man, that his bread and butter depend upon giving Americans the books they will accept with the least resistance and that translations may form only a small fraction of his total output. His impulse is to evade the difficulties residing in the unknown and confine himself to the languages that have hitherto provided successes. Probably a sound instinct underlies this impulse, for Americans respond more readily to the psychology inhering in the literature of widely-spoken European languages than in those of the smaller lands with a predominantly peasant population. Selecting, then, the French, German, Russian, Spanish and Italian books from among those offered he seeks an "expert" outside his own reading staff—and easily finds one. But the same astute publisher who demands every possible assurance as to the merit and salability of an English-language manuscript before he invests his money in it, who gets opinions from critics, advertising wizards, and even of salesmen, before he takes the risk, will accept or reject a foreign work on the judgment of the casual reader to whom he has submitted it (for the "expert" is a casual reader, one whom he happens to know or who is recommended because of knowing the language). He, or she, "took Italian" at college. She knows what she likes, she may even have critical ability, but she does not possess the peculiar combination of qualities that marks (or should mark!) a publisher's adviser. And in such manner is an author's fate sealed. Here I might add that such sealing of fate is but temporary: I doubt that any literary masterpiece has gone undiscovered, although the discovery sometimes comes too late for the author to benefit from it.

We hear much, and on good ground, about the revolution in progress throughout the world, about new orders (democratic and totalitarian brands) and the inauguration of a better day. True enough, political systems may change. Possibly those of today will be succeeded by others more elevated than ours; man may rise to a higher spiritual level. But the enthusiasm engendered by such aspirations should not blind us to history and

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

its processes. World federation may come and with it a universal currency, international police and abolition of customs duties and the rest, but in matters that directly affect traditions, tastes and regional customs there is no likelihood of, and there should be no desire for, basic change. We have the Basque people, the Volga Germans, the Pennsylvania Mennonites, as testimony to the tenacity of ancient habits of life and the impulse to preserve them even when completely ringed about by a society that reveals them as anomalous, paradoxical and anachronistic.

Political union cannot affect language; Esperanto, Ido or Volapük or their current successors may prove applicable to the conduct of business but their use is limited and they are as valueless to literature as a mechanical man is to life. Languages persist of their own accord; even with the three modern tongues spoken in Switzerland a fourth holds its own in certain cantons today as ever. Languages are not made, they become, however tightly Academies may hold the reins, and they are as much a part of a people as their physical singularities. It should be our aim to preserve separate languages and separate ways of thinking and to encourage the healthy nationalism that promotes the full expression of a people's genius; to urge students to wrestle with ideas of alien origin by studying languages, by translating and interpreting, so that the concepts and ideals of each group may grind against those of every other. It has happened again and again that the study of one people's literature by scholars of another land has yielded results of value to both.

The new immigration, the few tens of thousands who have come here from Europe since the modern Black Plague began to drive free minds from that Continent, will give fresh impetus to our interest in other languages and literatures. It may be taken for granted that all who have come to our shores are studying English diligently but it would be a grave error on our part to encourage a complete merging at the expense of the cultural asset which language constitutes. These men and women and their languages enlarge our intellectual vision and sharpen the tools with which we work. Even in the brief period of the new

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

immigration its membership has contributed significantly to our printed literature. This strength being added to our life has already given rise to talk of publishing books here in European languages. Already, indeed, a dignified French list bears the imprint of the Editions de la Maison Française of New York; a former publisher of Warsaw is testing the demand for books in Polish and, but for our entry into the war, there would have been a sizable attempt to issue works by some of the excellent German authors who are on their way to American citizenship. As a provisional measure, while Europe is without a free press, this is a meritorious ambition; whether future international cultural relations can be benefited by such procedure remains to be seen.

It appears that certain circles are not reconciled to the immigration of the last decade; they think it disturbs our social equilibrium. To others of us it would seem as though equilibrium has been notable for its absence from our society in the last twenty years or so. You can't disturb an absence! Furthermore, the net immigration in the last ten years was smaller than in any decade in one hundred years. The disturbed equilibrium is psychological in its nature: "thinking makes it so." What with unemployment and the obscurantists who hate anything European, the fancied disturbance becomes real and it behooves us to remind the cavillers that every American is descended from an immigrant, that every immigrant is a consumer as well as producer.

The leaders of American thought should note well that the current influx of Europeans has a significance and a portentousness quite different from the more numerous immigration of the past. For the most part those newcomers were predominantly impelled by economic motives or they were tempted here by steamship companies cooperating with purchasers of cheap labor. It was honest stock that we got but it represented brawn rather than brain. We needed those people and they have justified their presence. The relatively small additions to our population who have recently arrived stand for quite another thing:

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

this movement partakes of the character of those which supplied the qualities that made this nation the unique political and social experiment—successful experiment, one may say, despite the faults and weaknesses we recognize—that it is. The same hateful intolerance, religious and political, to which America owes its pioneers sends these people to us; former European upheavals brought similar groups whose members later distinguished themselves as American citizens, but never so many of so high a caliber as now enter the country. It is a commonplace to say that Europe's loss is our gain. The cream of its intellectual leadership is a gift for which we never can be sufficiently grateful. This admixture to our scholarship comes most opportunely; we are ripe for it, the past years in our cultural development seem almost like a deliberate preparation to absorb the men whom destiny has brought to us. And in the political aspect of this movement of populations it would seem as though our Bill of Rights had suddenly become luminous and alive through the magnetic attraction residing in that profane decalogue. Thus the exiles and refugees of this day who eagerly strive to attain citizenship are our own kind; they supplement our learning, they revive the meaning of those ideals which tend to be forgotten in the constant repetition of the words that describe them, and they supply us with living symbols of the pioneer spirit that instead of becoming a standard for daily emulation is chiefly perpetuated in history textbooks.

Our life cannot stand still under the shock of this sudden enrichment, this copious administration of vitamins of the spirit. It will restore the currents that have given Americans continuing youth, curiosity and audacity; it will renew our awareness of the animating value of heterogeneous elements and of the absurdities of the race theories that serve dictators as a red herring.

The introduction of new teachers into our colleges, our studios and conservatories; of foreign children into our schools; of unusual goods in our shopwindows; the presence of social groups whose daily customs differ from ours and who sometimes revert

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

to their native tongues, are visible signs of the new amalgam. We need have no apprehension: the numbers are not great, the influences are not subversive and the tendency is not unprecedented. It all means merely that a new spring has arrived in the rotation of our intellectual seasons, and that the sap is beginning to run again.

Organized efforts to bring about mutual understanding between peoples, to encourage a knowledge of each other's language, to read each other's books and to sing each other's songs, have long been promoted. There have been deliberate as well as spontaneous exchanges of professors and of students; there has been directed travel abroad for our teachers and students and for foreigners coming to our own land. The cultural value of these enterprises is beyond calculation. But to be of the utmost worth their primary aim should be above reproach; this travel, translation, exchange of teachers and students, should be part of a continuing process to universalize culture. Too often it is discovered that aspiration to knowledge has been cunningly diverted to political or other ends. The ways of propaganda are devious and dark and nothing is sacred to the "public relations counsel" whose fingerprints are discoverable on all projects to influence public opinion.

Notable among plans to influence the direction of culture is the campaign—no other word quite describes it—to make the North American lion and the South American lambs read out of the same primers, laugh at the same comic strips and be bored by the same inane movies. This is no ordinary scheme. Grim determination and the taxpayers' millions are behind it and it may not fail, because failure involves government prestige.

International cultural relations are not like a plant whose growth can be forced under glass; love for another country's stories and poems cannot be created by clever publicity, as if philosophy and art were an old brand of cigarettes under a new name. In all our efforts toward mutual appreciation we have to recognize that certain elements rooted in tradition, race and indigenous practices are not transferable. There are limits to the

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

international to which we must pay heed, and these limits cannot be expanded; certain aspects of national culture can be comprehended only painstakingly and patiently. If a mere interchange of books by means of translation, or the import and export of scholars, were the key to mastery of another nation's culture, it might easily be proved that cultures are alike except for language. Happily this is the opposite of the truth: the fascination of alien cultures lies in their inaccessibility. Therefore a scheme that is directed toward conquering the superficial while it ignores the essential is without substantial merit. It is admirable that we clarify, for the benefit of other people, our ideals of political government—however far we may be from practicing those ideals—and that we in turn study ideals prevailing elsewhere. But if in our enthusiasm we create the suspicion that our aim is not to clarify but to convert, our whirlwind efforts are wasted. Beating tom-toms for Yankee art and letters as a method of "selling" a political system that is a misfit for peoples whose genius forbids its acceptance is a manifestation of imperfect psychology and dubious statesmanship.

I cite this "campaign" as a not-quite-perfect example of how nations should stimulate mutual appreciation. It is almost inevitable that the people under attack by the friendly guns of our "good-will ambassadors," our books and our cinemas should ask why the mere fact of being in the Western hemisphere gives rise to these efforts. We are in the Northern hemisphere, too, yet it never occurred to government interests to establish an intellectual entente with Europeans. Can it be, the South Americans may ask themselves, that these film stars whom the United States sent us as envoys of the higher learning, these literary works whose translations they are fostering and these orchestras that tour our continent are only friendly emissaries?

Culture is not a commodity to be dealt in wholesale; it is not susceptible of high pressure salesmanship. German admiration for English letters and for the British people derived enormous stimulation from the cult of Byron which swept the country; Turgenev, Dostoevski, Tolstoy, made all of Europe curious

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

about Russian life; translations of Poe and Whitman awakened the Continent to American literature. This is the sort of propaganda that "takes," as vaccination takes, and it doesn't cost a cent. Whether you believe in the teachings of Henry George or not it remains true that the idealism of his land-tax theory engendered an attachment for the United States in every country of the globe. There was something in the hearts of men that responded automatically to Henry George, and the seed he planted in San Francisco sprouted over the world.

While it is desirable that every effort be made to mutualize the fruits of our talent the results remain as incalculable as genius. No calculated system, no Foundation with millions of dollars, can plan a Benjamin Franklin with his aptitudes for world-citizenship, a Karl Marx whose magnetic formulation drew together the scattered groups of like aspirations, or a Freud who discovered man afresh.

The next generation will be able to discuss our problem more intelligently than we can. They will be able to chart the results of the present influx of scholars into our universities, of the practitioners of arts and sciences who have made this country the scene of their activities. The experiment is not on a large scale, considering our vast population, but it is definite and its effects will be measurable. The influence of these adopted citizens will not hybridize our thinking and our writing; it will vitalize and enhance their quality. Whatever may be definitely foreign about their contribution will remain so; it will not mix. Calais and Dover are separated by only a few miles of water yet travelers from one of these towns to the other are forever baffled by the fact that the inhabitants are as different in looks, habits of life, tastes and temperament, as if they lived 5000 miles apart. National disparities endure and it is well that it is so. The aim should be to understand wherein the disparities lie and to learn from them. How richly the world would be rewarded if such study were to produce a little modesty among the nations!

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The Art of the Actor as a Psychological Problem

KURT KOFFKA

ALTHOUGH Friedrich Schiller has said, "*Dem Mimen flicht die Nachwelt keine Kränze*," the actor's fame is limited to his own time, most of us when we think of men and women who have achieved some kind of immortality remember, among others, names like Kean and Booth and Mrs. Siddons, Henry Irving, Sarah Bernhardt and Duse, albeit nothing of what they have done remains. The survival of their names is a measure of the depth to which they stirred their contemporaries; and indeed, turning from the past to the present, we find again the names of actors and actresses among those most familiar and popular. What accounts for the hold the player has on his public, what is the achievement that has raised him from his "outcast state" to the highest level of society?

This problem of the actor is much narrower than the general problem of the theater. I shall not concern myself, for instance, with the esthetic theory of the drama. Instead my arguments will be based chiefly on plays so flimsily constructed that nobody would think of reading them. Nevertheless, they represent a respectable portion of Broadway successes. To be sure, their appeal may lie in their topical interest, in the wittiness of the dialogue or the lavishness of the stage sets; but for all that, without a thoroughly competent cast such plays often would not survive their first night. They live because of the actors who give them life.

This seems to me a rather unique situation; for the best of orchestras under the most accomplished conductor cannot satisfy its audience by playing dull and uninspired music.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The actor, then, makes a very particular contribution; he affects the emotions of his spectators not simply by being the mouthpiece of the playwright but by some specific achievement which he alone is asked and able to produce. Probably every theatergoer has a dim conception of what this achievement is, but few, I believe, would be able to formulate their conception in concrete terms. This essay will attempt such a formulation.

I shall forget the actor for some time and describe instead a few situations from ordinary life. Suppose that there are a number of people sitting in the waiting room of a doctor, a business executive or an examination board. Every one of them has his own hopes and fears, every one of them is living intensely at this moment; thoughts crowd each other in everyone's mind: "What will it be like?" "What if I fail?" "Shall I be accepted and make good?" etc., etc. Looking around, each of them will see other persons, some fidgety, some pale, some stolid; but none of them is, for all each person can observe, so full of inner life, so stirred with emotion and stress, as he himself. And even if John *knows* that the result of the impending interview is much more important for Jack than for himself, Jack does not *look* the way John *feels*.

This fundamental fact, to which the Danish psychologist Edgar Rubin has drawn our attention,[1] must occupy us a little further. To be sure that the reader understands and fully realizes the meaning of Rubin's analysis let him remember how his friend looked when he took him to the hospital for an operation and how he himself felt when he had to submit to the surgeon's knife (or to any other similar experience). Or let him recall the day when he waited under the clock for the girl he was in love with and saw her coming. Had he been very sagacious he might have thought, "Is she as excited as I am?" But the very fact that he would have to think this, demonstrates that from merely looking at her, seeing her move and hearing her speak, he would have gained little insight into the state of her mind. Certainly Jenny does not look like a wax doll deprived of all

[1] Rubin, Edgar. *Bemerkungen über unser Wissen von anderen Menschen.* (1936), pp. 392-7.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

inner life; he sees her smile of welcome which is more than a mere greeting and reveals her happiness at seeing him; he sees a number of other qualities, most of them impossible to describe explicitly, qualities for which he has liked her; but that state of upheaval in which he found himself before he saw her come around the corner is not contained in the figure of the girl with whom he is speaking. And of course the same is true of Jenny who may *hope* that Jack is as keen to keep the appointment as she, but who sees a young man much more composed than she feels herself to be.

It need not always be so. A chimpanzee in a rage at being thwarted *looks* charged with emotions compared with which one's own emotions of the moment seem pale. And there are, of course, instances in which other human beings appear to us full of inner life—when they quarrel and hurt each other, when a mother sees the dumb appeal of a helpless suffering child. The reader will be able to supply examples from his own experience, but he will admit that cases in which other persons seem to be possessed by emotions stronger than his own are the exception rather than the rule.

It will be convenient to have a term for the characteristic we have tried to describe. Let us call it *psychic richness*. Then we can say that other persons appear to us endowed with psychic richness of varying degrees and that ordinarily our own psychic richness seems much greater than that of others.

Our next question is, of course, that of how it is possible for us to be aware of psychic richness in other persons. There was a time when psychology had a pat answer to this question. Since it is impossible, so this answer ran, to see beyond the surfaces of bodies, because these alone send light waves into our eyes, a knowledge of psychic richness, which does not stimulate our sense organs, can only be indirect, being based either on association or on inference by analogy. Inference by analogy works as follows: whenever *we* cry we are in distress; therefore when we see tears in *others* we *infer* that they are in trouble. Association may be thus exemplified: frequently when we were small

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and persons in authority raised their voices we were punished, i. e. made to suffer pain or inconvenience; therefore when we now hear a person raising his voice we expect unpleasantness and project this expectation into the other person as anger.

But when the reader thinks of his own experience he is hardly willing to accept either of these explanations. When we see a child crying we see *his* misery in *his* face; we do not have to think of those occasions when we shed tears or of our own unhappiness. Nor do we when somebody begins to shout at us think by association of the consequences of similar experiences of our own; instead we hear directly the anger in the voice. This is simple observation and description, and psychology's two proposed explanations do not fit the facts as thus described. Still, we are told that our observation may be mistaken, a pure illusion, and that indeed perception is full of illusions. For example, when we grope ahead of us in the dark with a walking stick we believe we feel the hardness or softness of the ground at the end of the stick. But this belief, according to traditional psychologists, is a delusion because the sense organs that mediate the sensations of touch are located in our skin, so that what we really feel are contacts in our hands. And similarly, these psychologists (supported by a universal prejudice since it is impossible to perceive psychic richness directly) argue that hardness or softness must enter our experience by indirect routes. And inasmuch as the theories of association and inference by analogy present the only possible alternatives as indirect routes they must be true.

Psychology has learned that this argument is spurious. In place of a long theoretical argument a few simple examples will serve to show that both traditional explanations are inadequate. Köhler has described how chimpanzees run away from a strutting hen defending her brood.[2] Inference by analogy cannot explain this behavior; for even if we should concede to apes such a sophisticated thought process, they would have no basis to start from since chimpanzees do not strut. Nor does

[2] Köhler, Wolfgang. *The Mentality of Apes* (New York, 1925).

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the explanation by association fare any better; for the ape is so much stronger than the hen that the hen rather than the ape would have suffered had an actual encounter taken place. An example from human psychology may be given: can one explain the sensuous appeal of a face by either of these principles? Certainly not.

How, then, can psychic richness be perceived? To answer this question we must first raise an even wider issue: how can anything be perceived, e.g. shapes, melodies, speech? Take twelve small squares of paper, say half an inch square, and arrange them on the circumference of a circle of a radius of two inches. Then, since the perimeter of this circle is just over 12½ inches, the space between the squares is a little larger than that occupied by them; nevertheless, you will see a circle, even though no circular line has been drawn. Now, following the argument of the preceding section, we could say—as psychologists have said for a long time—that we do not *really see* the circle, because although the squares stimulate our eyes there is no stimulation for the circle. Psychologists today know that this argument is spurious too. The proof, involving a mass of experimental material, cannot be given here; but the reader will understand that if the proposition which we are denying were true, we should *see* practically nothing because our argument applies to *any* shape. There is no stimulus for a shape and yet we perceive shape. This paradox disappears when one realizes that perception is not the sum of individual sensory responses to a great number of single or point-stimuli but a whole-response to a configuration or pattern of stimulation. And as a rule this whole-response has properties absent from the response to the individual stimuli in isolation. Thus in our example the circle is round but not the little squares that make it up. I shall give another example that may possibly be simpler. If someone plays a scale on a piano, striking each successive tone more strongly than the preceding, we hear a crescendo. There are stimuli for eight tones only; there is no stimulus for the crescendo—yet it is an outstanding characteristic of what we hear.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Music offers a well-nigh inexhaustible store of pertinent illustrations. Every melody remains a mystery if we think of it in terms of single tones and their stimuli.

> And I know not if, save in this, such gift be allowed to man,
> That out of three sounds he frame, not a fourth sound, but a star.

Or one might cite the major and minor keys—which characterize a whole piece of music but not its individual notes.

With this last illustration we approach our starting point. For the difference between the major and minor modes, between the virile hardness of the one and the soft melancholy of the other, is one of expression—a difference preserved in the German terms for the two modes, *dur* and *moll*. When we hear a melody we hear not merely a sound-pattern, i.e. a temporal whole, that we can reproduce and that in the realm of space finds its analogy in a line-pattern or figure. We also hear psychic content. Similarly, in the graphic arts, an ornament may be gay and sprightly or heavy and clumsy. At first blush it may seem paradoxical if not impossible that such qualities can belong to objects of our perception; but the question of how such qualities get there takes on another aspect as soon as we remember that the same question must be asked about much simpler characteristics such as round and square, sharp and blunt, even large and small.

Fundamentally the answer to this question must be the same of whichever of these characteristics we are considering, and therefore also of psychic richness. Characteristics that constitute psychic richness are properties of whole-responses just as size and shape are. Thus to the spatio-temporal stimulus-pattern that we receive from a certain human face there corresponds as a whole-reaction our perception of an intelligent, keen, well-balanced personality; we do not primarily see blue eyes, a long nose, thin lips, etc. Just as in the case of the twelve squares we saw a circle directly, so with the human face, personality is viewed directly and the facial details are as subservient to personality as the squares are to the circle.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

True enough, it is easy to formulate the conditions under which we see circularity whereas the problem is much more complicated when psychic characteristics are involved. But when we learn that there are intermediate cases in which we know the answer in fairly concrete terms—when some of the conditions that make a design appear "wrong," out of balance, ugly, can be defined—it becomes easier to accept the conclusion that the same general principle holds good for all cases.

Psychic qualities of great intensity can be perceived in inanimate objects, witness marionettes; with the help of trick films the same might be demonstrated for pure shapes having no likeness to human or animal forms.

Very early in the course of this essay the conclusion was reached that other persons appear to us endowed with *varying degrees* of psychic richness. It is now apparent that non-living objects are also frequently imbued with qualities similar to those that make up psychic richness and that the range of variation is much greater than we had originally envisaged.

We are now prepared to tackle the question posed in the first paragraph of this study: What is the actor's specific achievement? The reader will, I am sure, anticipate the answer. It lies in the concept of psychic richness, for the characters on the stage, if well played, are endowed with a much higher degree of psychic richness than the average people we see around us. And in a good performance this is true of every single character from the lead to the most insignificant part—the parlor maid who announces Mr. and Mrs. Robinson on a stage has more of this quality than the parlor maid who does it in real life.

This is something very different indeed from exaggeration, which may or may not be a good technique for achieving this result. The parlor maid is as good an example as any to make the distinction clear. Filling the maid with psychic richness does not mean making her more servile or coy or class-conscious or what not than an ordinary maid. Rather, it means making the spectator aware of the particular life this particular maid would have at this moment.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

What this particular inner life would be the actor and director must discover from their own imaginations. That is what we call the actor's interpretation of a part. But two actors may have the same interpretation and yet one may be great, making the particular inner life transparent to the audience, and the other may be a complete failure. On the other hand two actors may be equally successful in putting across their different interpretations; then both create equal fullness of inner life, though the kind of psychic richness they present is different.

Have I said more than that actors may have different interpretations and may differ in quality? I think I have; for I have tried to describe concretely what accounts for this difference in quality.

How, then, can the actor imbue the dramatis personae with psychic richness? This question leads us back to the earlier discussion of how we perceive another person's mind. The answer then given applied to marionettes as well as to real, living, human beings and consequently ignored a very important difference. For whereas marionettes, however great their psychic richness may appear to be to the spectators, have no psychic life, the *apparent* inner life of human beings usually corresponds fairly well to their *real* inner life, although the *real* is as a rule much fuller than the *apparent*. Another question is therefore involved in our problem, viz. why does the apparent inner life represent the real inner life more or less correctly; why is perception in this as in so many other cases veridical?

So far we have established a connection between the outward behavior of *A* and the way he looks to *B*. If, for example, *A* yells and moves rapidly around, *B* is aware of a furious person, this in close analogy to the example of the crescendo previously discussed. But we must now remember that in all likelihood *A* is *really* furious when he appears so to *B*. In order to understand why this should be true let us consider another instance. Imagine a lover who improvises on the piano while he waits for his beloved. At a certain moment he hears her approach. Will this psychic event be expressed in the dynamics of his playing?

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Undoubtedly he will now play crescendo rather than diminuendo; his increasing happy excitement gives rise to an increasing intensity of movement. The crescendo is both without and within; the outward movements mirror the inner experience. To be sure, the outward movements alone are responsible for the observer's awareness of emotion; but since these are translations of the emotion into a different medium, it is no longer a matter of quite so much mystery that the dynamic qualities with which they endow the lover's person for the observer are similar to the lover's own experience.

Let us be somewhat more explicit. We remember Oliver Wendell Holmes's explanation of why it is so difficult for two people to agree. "When John and Thomas, for instance, are talking together, it is natural enough that among the six there should be more or less confusion or misapprehension." These six persons are John as Thomas sees him, John as he sees himself, and John as God sees him, and the corresponding three Thomases. We shall apply this distinction to the case of one person observing another; Thomas as the observer, John as the observed, both as God knows them. John has his rich inner life which I shall call *Emotion* and he behaves in certain ways, for which behavior I shall use the term *Expression.* Thomas perceives, not John, for this name was to stand for the man as God sees him, but his *Mask.* Keeping strictly to this new terminology we may say: The mediating link between John and Thomas is John's *Expression*—corresponding to the sound waves issuing from a musical instrument when Thomas listens to John's playing. The *Expression* produces John's *Mask* for Thomas, and it is similar to John's *Emotion*—a sort of image reflected with some distortion. Under these conditions the *Mask* has a good chance of being similar to the *Emotion*—which means, in popular terms, that Thomas has a good chance of sizing up John.

Our analysis has led us to adopt three terms, *Emotion*, *Expression* and *Mask*; let us consider the relations between them. The *Expression* is similar to the *Emotion*, it produces the *Mask*,

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and this again is similar to the *Emotion*. From the point of view of the observer only the second relationship, that between *Emotion* and *Mask*, is relevant. Since it is the *Expression* that is responsible for the observer's picture of the other person it can make no difference for this picture how the *Expression* is produced—whether by a real emotion of which the *Expression* is a continuing reflection or by purposeful control or by a mechanized habit.

If, ordinarily, the people we observe seem poorly endowed with psychic richness, then two things must severally or jointly be true. Either the *Expression* is so greatly attenuated that it cannot produce a rich and vivid mask or the observer is, at the moment or constitutionally, unable to respond properly to a well marked *Expression*.

Let us return to the actor. He aims to create a rich and vivid *Mask* of himself in each of his spectators, and for the achievement of this aim the external conditions are favorable since the audience, intent on events taking place on the stage, is tuned to his actions. His tool is what we have called *Expression*. But this *Expression* must fulfill a function different from the ordinary function of *Expression*. For the actor is acting toward, i.e. for the benefit of, the audience; he must appear full of psychic richness directed primarily toward it and only secondarily toward the other players; and yet to the audience it must appear that the player knows nothing of its existence.

Thus the *Expression*, the player's actual performance, raises a host of problems that might be centered around the question: How much of acting is imitating?

Since an exploration of this question would call for a full-length, separate essay I must leave it unanswered. But one obvious fact remains to be mentioned. In my schema I connected *Mask* with *Expression*. But in reality the way a character looks to the audience depends not only on his own words and movements but on the rest of the cast—that is on the total structure of the scene. Therefore the director also contributes to the psychic richness of the dramatis personae in the play.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The Art of the Actor as a Psychological Problem

A person's outward behavior, I have said, mirrors, even though with distortions, his inner life. I must now point to one factor which influences everyone's outward behavior, quite apart from his inner experience—namely, the general cultural pattern, the style of life, of a society. If *A* is a Sicilian, *B* one of his compatriots and *C* a Yankee, *B's Mask* of *A* will be decidedly different from *C*'s. Whereas *B* may have a fairly adequate picture of *A*, *C* without further acquaintance will find in *A* a number of qualities that *A* does not possess. *C* will impute these qualities to *A* simply because under a Yankee style of life the outward behavior of *A* would be possible only for persons with irrepressible emotions.

To what extent does this apply to the actor? Inasmuch as speech, gesture, all outward behavior is regulated by cultural patterns, the actor could not achieve his aim, the presentation of living people, if he did not conform to these patterns. And therefore we might expect actors belonging to cultural patterns differing from our own to affect us less than members of our own group—and that whether the cultural distance be geographically or historically conditioned. Should we, if we could see them, appreciate the great actors of the past as much as their contemporaries did?

No certain answer can be given, but it has been said that Duse would move us just as she moved her audiences 50 years ago; Sarah Bernhardt would not. Let us accept this statement as an instance of a more general principle and try to explain it. Though each actor must conform to two conditions, the inner life he wants to portray and the cultural pattern of his group, the first is the more important because it is the essential one. Ultimately cultural patterns have been molded by people by virtue of their inner experiences. As a result a particular cultural pattern can be adapted to the expression of what is essential. Conversely it is possible, and the successful hostess knows the secret only too well, to create the appearance of a rich inner life entirely by means residing in the cultural pattern itself. Similarly an actor who is a master of this art creates psychic

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

richness—but only for those who belong to his cultural pattern. He may be idolized by his contemporaries but he would not stir the audiences of another age could they see him behind the footlights.

In giving psychic richness to his parts the actor makes them essentially human; and this is true of every role, from that of King Lear to that of the porter in *Macbeth*. Humanity is infinitely rich in its modes of feeling and expression, and underlying all this variety there is some essential quality by virtue of which we are all human. In our intercourse with other people we are not often explicitly aware of this quality. It is the actor's achievement that he spreads humanity in front of us, to be admired, pitied, laughed at—humanity full, concrete and transparent. And this explains to me the hold that the actor exercises over his contemporaries; for no art would be possible were it not that we strive for the realization of the essential. In creating persons with a heightened inner life the actor brings us closer to the essentials of human nature; as such a creator he is an artist in his own right. And thus the truly great actors have wrought a miracle: that the name of "the poor player that struts and frets his hour upon the stage and then is heard no more" is preserved in the list of man's immortals.

A Letter to a Young American

CHARLES EDWARD EATON

This is an American morning.
Sky is clear, and the sweet air tastes like melon;
The horizon is strung with racing birds,
Sun is a benediction upon the lands,
And breath is a prayer for a long, mild day.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

A Letter To A Young American

Somewhere you wake in exile.
O my young friend, in resolute exile
In this very land! Last night you drew the blinds
And mortised your heart securely and slept,
Having put the door key by your pillow
As if you did not trust your countrymen.
Now you wake in a foreign port as you
Have done on other mornings, not knowing
How the voyage ended there, and not caring
When the next ship turns toward home, the green port.

I wrote you years ago
The real expatriate often stays at home.
Not an outer but an inner landscape
Is the love of land. The clear native word
Is babble to him who listens without love.
(Love simplifies all lexicons and grammars,
All language jagged in the mind.) You see
The land as one whose heart has suffered frostbite.
Love is like spring, and you have need of it
To change the season. I send you this letter
To bring you home into your native weather.

This is an American morning.
Do not forget the dark woods are greening.
My valediction, as you homeward turn,
Is, "Anchor and rest where the long voyage ends."

Postscript: My prayer is answered. Day is mild.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Newton and the Modern World

I. BERNARD COHEN

ISAAC NEWTON was born on Christmas Day, 1642 in the hamlet of Woolsthorpe in Lincolnshire. England was then using the Julian calendar, and if we convert this date into a New-Style Gregorian date it becomes January 4, 1643. We may mark the time in history and in science by recalling that Galileo had died about a year earlier, on January 8, 1642 (Gregorian); that Harvard College had been founded some six years earlier, in 1636; and that Louis XIV, the "grand monarch," was then five years old.

Newton's life divides itself into three convenient periods. The first, of 27 years, ends with his appointment to the Lucasian Professorship of Mathematics at Cambridge in 1669; the second, of 25 years, ends with his appointment as Warden of the Mint in 1696; and the third and last, of 32 years, the longest of the three, contains his official residence in London, in what has been described by De Morgan as a time which "saw him in the uninterrupted possession of as much fame as man can have, and power never equalled over those of the same pursuits as himself."

The first period is marked especially by an interval of two years spent in seclusion at Woolsthorpe. In January 1664/5, Newton together with twenty-five other candidates took his degree of Bachelor of Arts at Trinity College, Cambridge. In the autumn of that year the "great plague" forced the University to close and Newton returned home to seclusion, study and experiment. Dean Louis T. More, in the most recent and most authoritative life of Newton, remarks with conviction of this period, "There are no other examples of achievement in the history of science to compare with that of Newton during those two golden years."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

And "golden years" they were. Within their compass young Newton, though just graduated from the University, made three discoveries each of which would have entitled him to a most distinguished place in the history of science. The first of these was the mathematical method which he called "fluxions," today known as the differential calculus, which forms the basis of modern mathematics and the chief instrument by which problems in theoretical physical science are now solved. The second was the law of composition of light, which led him to the key to the nature of color and the true character of white light, and which enabled him to complete the explanation of the rainbow and of the phenomenon known as chromatic aberration. Newton discovered that ordinary "white" light or sunlight is composed of light of different colors, each color having a different degree of refrangibility. When, therefore, white light enters a prism each of its component parts is refracted to a different degree and will strike a screen at a different point, thus forming a spectrum. When light from a star passes through a thick lens, each color comes to a focus at a different point in exactly the same way as with a prism, causing chromatic aberration. To remove the latter from telescopes, he invented the reflector, which uses as its objective (the part of the telescope that first receives the light) a mirror instead of a lens.

The third discovery was the law of universal gravitation. Eventually this law stirred the imagination more than any theoretical discovery of modern times with the possible exception of the Copernican system. The great Laplace, notorious for his refusal to praise the work of other men, acknowledged that because there is but one cosmos there can be but one law governing it, and that that universal law can be discovered only once: "*Il était réservé à Newton, de nous faire connaître le principe général des mouvements célestes.*" And in the dedicatory epistle which Halley wrote for the *Principia* the last line, "*Nec fas est propius mortali attingere divos*," stated the generally accepted point of view about the relation between the discoverer of the "first law" of the cosmos to those who dwelt in it.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

One of the things everyone has heard about Newton is that he arrived at the law of universal gravitation by observing an apple falling from a tree. This story was presented to the world in Voltaire's *Eléments de la philosophie de Newton*. Voltaire tells us that he had it from Newton's niece, Madame Conduitt, in this form:

> Un jour, en l'année 1666, Newton retiré à la campagne, et voyant tomber des fruits d'un arbre, . . se laissa à une méditation profonde sur la cause qui entraîne ainsi tous les corps vers une ligne qui, si elle était prolongée, passerait à peu près par le centre de la terre.

Such is the story; and it has been accepted or rejected by various writers.

But recently a hitherto unpublished biography of Newton has come to light. It was written by William Stukeley, physician and divine, one of the best-known antiquaries of the 18th century, a friend of Newton, a Fellow of the Royal Society of London, and one who was, further, in his own phrase, "a countryman of Sir Isaac Newton's." He began collecting materials for his biography in the year 1725, "in the critical time when they were only to be had." Stukeley tells us:

> After dinner, the weather being warm we went into the garden and drank thea, under the shade of some appletrees, only he and myself. Amidst other discourse, he told me, he was just in the same situation, as when formerly, the notion of gravitation came into his mind. It was occasion'd by the fall of an apple, as he sat in a contemplative mood. Why should that apple always descend perpendicularly to the ground, thought he to himself. Why should it not go sideways or upwards, but constantly to the earths centre? Assuredly, the reason is, that the earth draws it. There must be a drawing power in matter: and the sum of the drawing power in matter of the earth must be in the earths centre, not in any side of the earth. Therefore does this apple fall perpendicularly, or towards the centre. If matter thus draws matter, it must be in proportion of its quantity. Therefore the apple draws the earth, as well as the earth draws the apple. That there is a power, like that we here call gravity, which extends it self thro' the universe.
>
> And thus by degrees he began to apply this property of gravitation to the motion of the earth and of the heavenly bodys, to consider their

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

distances, their magnitudes and their periodical revolutions; to find out, that this property conjointly with a progressive motion impressed on them at the beginning, perfectly solv'd their circular courses; kept the planets from falling upon one another, or dropping all together into one center; and thus he unfolded the Universe. This was the birth of those amazing discoverys, whereby he built philosophy on a solid foundation, to the astonishment of all Europe.[1]

If the three discoveries that formed the chief basis of Newton's contribution to science originate in what we have called the first period of his life, then it is equally true that their consummation occurred in what we have called the second period. The latter began in 1669 when Newton was appointed Lucasian Professor, taking the place of his teacher, Isaac Barrow. Barrow, an excellent teacher and in many ways the "intellectual father" of Newton, had held the chair for only six years when he resigned it to Newton whom he frankly acknowledged to be his superior.

This second period, which dates the beginning of Newton's public career, is of singular interest since within it he produced all of the great works that brought him scientific fame. Recognition came with them. The Royal Society of London entered on their minutes on December 21, 1671 and on January 11, 1672 (Julian) what have been described as "two of the most important announcements they ever had to make." It was registered that "Mr Isaac Newton, Professor of Mathematics in the University of Cambridge, was proposed candidate by the Lord Bishop of Salisbury [*i.e.* Seth Ward]" and, then, that "Mr Newton was elected." This is hardly the place to elaborate the details of Newton's contributions to science. But it may be of some interest to delineate their general nature and effect.

Newton's first published paper was devoted to an account of his discovery of the law of composition of white light. His explanation of the phenomenon of colors in a prismatic spectrum was fully appreciated by the Royal Society who published his

[1] Stukeley, William, M.D., F. R. S., *Memoirs of Sir Isaac Newton's Life:* Being some account of his family and chiefly of the junior part of his life (1752). Edited by A. Hastings White (London: Taylor and Francis, 1936).

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

paper in their *Philosophical Transactions*. But many others, notably the French Jesuit, Pardies, and Robert Hooke, raised violent objections. In particular they did not like Newton's seeming advocacy of the corpuscular hypothesis concerning light, according to which light is supposed to consist of tiny material bodies issuing from a luminous source. Newton had to reply to these objections, a task he found extremely disagreeable. "I intend," he declared, "to be no further solicitous about matters of philosophy." And later, "I was so persecuted with discussions arising from the publication of my theory of light, that I blamed my own imprudence for parting with so substantial a blessing as my quiet to run after a shadow." In order to avoid further opposition and controversy he refused to publish his *Opticks* until 1704, when Hooke had died.

So repugnant to him was this consequence of fame, *i.e.* the possibility of criticism, that he protested he would not allow his works to be published until after his death. "It may be said, without great exaggeration," writes Dean More, "that it was as difficult to force his mind to divulge his ideas as it has been for him to create them." De Morgan tells us that a discovery of Newton's was "of a two-fold character—he made it, and then others had to find out that he had made it." The morbid fear of opposition from other scientists affected Newton to such a degree that later in his life he said, "Philosophy is such an impertinently litigious lady, that a man had as good be engaged in lawsuits, as have to do with her."

But an even greater controversy was in store for Isaac Newton—the controversy with Leibniz over the discovery of the differential calculus. The arguments were heated on the part of the two partisans and their respective supporters although it is generally agreed today that both discoveries had been made independently. Both relied in great measure on the analytical geometry of Descartes, the algebra of Wallis and the methods of maxima and minima of Fermat, to mention but a few of the contributions that made the stage ready for the discovery of the calculus.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

But however important Newton's work in mathematics and optics may be, his *magnum opus* insofar as the world is concerned is his *Principia Mathematica Philosophia Naturalis*. The story of the origin of this book is romantic. Toward the end of the year 1683 his friend Edmund Halley had been considering a question of an astronomical nature: What would be the curve described by the planets about the sun on the supposition that gravity diminishes as the square of the distance? Visiting Newton in August of 1684 Halley put the question to him. Newton replied immediately, "An ellipse." He had solved the problem but he could not find his notes. After Halley's departure Newton rewrote his account and sent it to Halley who urged upon him the continuation of such obviously important work.

The problem was one concerning gravitation. Newton knew of Kepler's three laws of planetary motion, *viz.*: (1) every planet moves in an elliptical orbit having a focus at the center of the sun; (2) the line joining the center of the sun with the center of any planet sweeps out equal areas in equal times; (3) the square of the time taken by a planet to go completely around the sun is proportional to the cube of its average distance from the sun. Newton was also acquainted with Huygens' solution of the problem of the relations between attractive force and circular motion, *i.e.* centrifugal forces. Newton, with the aid of mathematics, arrived at a law of gravitational attraction according to which the force varies inversely as the square of the distance between two bodies and directly as the square of their masses. Well-established tradition has it that Newton made a rough calculation to discover whether or not an attractive force, varying as the inverse square of the distance, would satisfactorily account for the laws of planetary motion. But his lack of success in the case of the moon supposedly caused him to throw the subject aside. Some years later, according to legend, he found he had used an incorrect measure of the earth; when he used Picard's computation of the dimensions of the earth he met with immediate and signal success. Whether or not

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

this story is true, the fact of the matter is that he did not resume his investigations of this subject until 1679.

When Newton replied to Halley's question Halley knew that Newton had finally solved the age-old problem of gravitation and the mode of celestial motion. When he informed the Royal Society of the news they duly recorded the promise of a complete manuscript. The Royal Society undertook to publish the work and Newton was committed once again to publication. The story of how Halley worked over the manuscript, how he personally saw it through the press and even paid a good part of the costs, needs no retelling here. Suffice it to say that the work was finally issued in 1687 in a small edition which probably sold for ten or twelve shillings a copy. It bore the *imprimatur* of Samuel Pepys as President of the Royal Society, although it is to be doubted whether the learned diarist could have understood so much as a single sentence of it.

Now the universe was under law, and a very simple law at that. With one broad stroke of genius a new era was ushered in; man no longer had to invent special hypotheses to explain planetary motion, nor need he endow the planets with "special intelligences" to direct them in their paths. Considerations of "weight and measure," the fundamental three Newtonian laws of motion, and the law of universal gravitation were sufficient to explain the hitherto unsolved mysteries of the universe. Small wonder that the succeeding century had so great a veneration for Isaac Newton that Pope was able to write:

> Nature and Nature's law lay hid in night,
> God said, Let Newton be, and all was light.

Derived in part from Galileo's investigations of falling bodies and Kepler's discoveries about planetary motion, the laws of motion formulated by Newton form the basis of all mechanics, of all motion. He asserted that the absence of force implies uniform (unaccelerated) motion in a straight line; that a change of motion (acceleration) is determined by the force acting; and that action and reaction between two bodies are always

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

equal and opposite. Movement is change in place. When Galileo investigated the dynamics of falling bodies he considered their movements with respect to the surface of the earth. When Newton investigated the problems of the solar system he applied no such simple standard. The very nature of the concept of universal gravitation dictated the conviction that *all* bodies attract one another—the sun pulls on the earth and the earth pulls on the sun, the moon pulls on the earth and the earth pulls on the moon. Not only does the sun attract the other bodies in the solar system; it is in turn attracted by each of them. To resolve the difficulty Newton applied his third law—that action and reaction between two bodies are always equal and opposite. Reasoning from this law he concluded that, with regard to the bodies in the solar system, the center of gravity does not move. So much was supplied by mathematical physics; Newton's personal conviction supplied the rest. He asserted that the absolute nature of space rendered that center of gravity a fixed point for the universe.

Today we no longer hold to that view. The theory of relativity has altered our notions of time and space, neither of which we believe to be absolute. Einstein has demonstrated that the laws of dynamics should be given a more general form than that enunciated by Newton. To Pope's couplet, quoted above, J. C. Squires added the lines:

> But not for long, for Devil howling Ho
> Let Einstein be, restored the status quo.

But, considered in all its aspects, Einstein's theory of relativity is, as S. Borodetsky has put it, "a wonderful vindication of the sagacity of the originator of universal gravitation." The universality of gravitation is, after all, the most distinctive characteristic of Newton's conception of that force. And, the conception of a universal force, as developed in Newton's incomparable *Principia*, is a unique achievement.

The great Newtonian synthesis was based on the work of predecessors. The immediate past had produced the analytical

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

geometry of Descartes and Fermat, the algebra of Oughtred, Harriot and Wallis, Kepler's laws of motion, Galileo's law of falling bodies. It had also produced Galileo's law of the composition of velocities—a law stating that a motion may be divided into component parts, each independent of the other (for example the motion of a projectile is composed of a uniform forward velocity and a downward accelerated velocity like that of a freely falling body). The afore-mentioned are but a few of the ingredients present and waiting for the grand Newtonian synthesis. But it remained for the genius of Newton to add the master touch; to show finally, and once and for all, in just what manner the ordered universe is regulated by mathematical law.

One of the greatest of Newton's debts to his predecessors was that he owed to Galileo—not just for his laws of motion and mechanics but rather for a new attitude. Prior to Galileo's time it had been generally agreed that there was a difference between sublunary and celestial matter. The matter of the heavens, of the moon, the sun, the planets and the stars, was thought to be crystalline-perfect, immutable and unchangeable. But Galileo's telescope had shown him that the opposite was more truly the case. The sun has spots and rotates like the earth. The moon is uneven in surface, covered like the earth with mountains and valleys. Venus has phases and is like the moon. Jupiter has moons and is like the earth. The planets shine by reflected light, not by light of their own, and are therefore like the earth and the moon. As a result, Galileo preached the essential uniformity of all matter and was thus led to the conviction that it is as "dignified" to study the laws governing the motion of a falling stone as those governing the movement of the celestial bodies. Further, since all matter is the same, the laws must certainly be the same laws.

Prior to these discoveries it had been thought that whereas heavenly matter is perfect and unchangeable, earthly matter is changeable, therefore corruptible, and hence unworthy of study. What, asked Galileo, is so undignified about change? He noted that great value was attached to precious stones because, like the

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

matter of heavenly bodies, they are "perfect and unchangeable." Galileo wrote that he would prefer one small plot of earth with a tangerine tree growing in it. To him the continuous cycle of growth and decay was symbolic of the living process, and the tangerine tree, bearing both fruit and flower, was the epitome of fertility and living dignity.

Newton's accomplishment was to give a formal statement to Galileo's credo. He demonstrated that the laws of motion apply equally to terrestrial and heavenly bodies; that the force which keeps the moon in her perpetual orbit is the same force which gives curvature to the flight of a stone on the earth. The greatness of Newton's conceptual achievement lay not only in his discovery of the law regulating celestial movement but in his demonstration that the same law governs *all* motion: all matter attracts all other matter and does so according to the inverse-square law. As Alfred North Whitehead has put it, Newton directed

> attention to *mass* as a physical quantity inherent in the nature of a material body. . . . The great forces of nature, such as gravitation, were entirely determined by the configurations of masses. Thus the configurations determined their own changes, so that the circle of scientific thought was completely closed. This is the famous mechanistic theory of nature which has reigned supreme ever since the seventeenth century. It is the orthodox creed of physical science.

And then, when Newton was at the height of his scientific career, he abandoned the pursuit of science for a career as public servant. The third period of his life began when he was, at his own request, appointed Warden of the Mint. He took his duties at the Mint very seriously. Under his supervision the great undertaking of the total recoinage of English money was begun and completed. When this had reached its conclusion, in 1699, Newton was promoted and became Master of the Mint. In 1703 he was elected President of the Royal Society.

But this third period of Newton's life was not wholly barren of scientific achievement. It not only witnessed the publication of the *Opticks* (1704) but was marked by various discoveries.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

With one of these there is associated a story that can never be too well known and that illustrates the magnitude of Newton's creative ability better than any description could possibly do.

In the Leipzig *Acta* for June 1696 Johann Bernoulli, one of Europe's foremost mathematicians, published a challenge problem—addressed "to the most acute mathematicians of Europe." The problem was to find the curve between two points, not in the same vertical line, along which a body falling by its own weight would descend in the least possible time. Newton received two copies of the problem at four o'clock one afternoon. Before he went to bed that night he had not only solved the problem and found the curve in question to be the *brachistochrone* but had completed the problem by generalizing it.

In the course of time Newton's result was printed, although anonymously. When it came to the hands of the challenger he immediately recognized the authorship and exclaimed, "*Ex ungue leonem!*" A mere "claw" sufficed to reveal the "kingly creature."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Sour Notes in National Harmony

Fort Sumter and Pearl Harbor

George Fort Milton

UNDOUBTEDLY Pearl Harbor marked the beginning of as overwhelming a crisis in our life as a nation as did the firing on Fort Sumter, in Charleston Harbor, fourscore years before. Did it have the compensating value of having unified our national spirit in an all-out fight for victory? Certain lessons of the Civil War may help illumine the twilight zone about this question.

It is not my purpose to seek to document the phrase, familiar in our folklore, that history repeats itself. The annals of man upon this planet show a multitudinous variety of events and trends. But at the same time, running through them are certain factors that can be discerned in various guises epoch after epoch and age after age. And inasmuch as history stems out of this continuous interaction of constants and variables, the frequency of analogous situations is not surprising. "*Plus ça change, plus c'est la même chose.*"

The rain of death from the tropic air that Sunday morning last December had strange repercussions upon the spirits of the people in the continental United States. Until then we had been almost as self-deluding as had the people of the country, North and South, in 1861 before Confederate guns opened on Fort Sumter.

Before Japan's attack, millions of Americans hugged to their hearts the flimsy fiction that this nation was engaged in "defense." True enough, we all knew that we were building ships, planes, tanks and guns; that we were training an army, the purpose of which was to do something more than "squads east and west." For months an increasing number of our ships of war

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

had been cruising in the Atlantic and the Caribbean with guns cleared for action. These moves meant shoot, not shield. Even so we seemed to enjoy the soft, passive and nonparticipating vocabulary of "defense." From fighting to finance, our whole war structure used the word "defense" overtime. Even more serious, many sections of our people seemed determined to believe that all we were doing, or would ever do, was to defend. Looking back over the last six months we can see that this strange misconception was indeed a real American tragedy and that it contributed greatly to the growth of a soft, spotty emotional attitude toward our national danger. But for this we should not today be so laggard in unifying our national efforts to win the war.

Go back eighty years and consider the pre-Sumter America. Then too was exhibited an almost exact parallel of softness, of lethargy, of weakness rather than strength. As with our current challenge, the appeal to the God of battles came after years of growing feud. The forties were marked by turbulent sectional division. An effort at compromise in 1850 soon denied its promise and the latter half of that decade was marked by increased bitterness. This was true within the slave states themselves, where the power-hungry fire eaters were at cross purposes with the moderates and the conservatives. Differences of feeling were quite marked in the Border States.

Even more important, from the standpoint of the present comparison, was the conspicuous division in the North. The variant groups extended all the way from the radical Abolitionists at the extreme Left to the active slavery sympathizers at the opposite pole. Less violent than the Abolitionists, the Anti-Slavery men took their stand on the thesis that the area of slavery must not be extended. A little further to the Right were the conservatives—Douglas Democrats, "Old Line" Whigs, some Know Nothings, a few new Republicans—who still hoped for compromise. Far to the Right were the members of James Buchanan's patronage brigade and other northern friends of the slavery extension attitude, popularly known as Buchaneers or

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"Doughfaces." Each of these factions had its candidate for President in 1860: Lincoln, Douglas, Bell and Breckinridge. The passions of the canvass deeply divided the North, where Lincoln received a minority of the votes cast (as he did in the country as a whole). His thoroughly constitutional election started the secession parade. Most northern people refused to take this seriously; they thought it a bluff. Some of the more eccentric among them, like Horace Greeley, said, "Let the erring sisters depart in peace."

With Sumter, however, in North and South alike there came a seeming unity of peoples ranging themselves for battle. In the new Confederate States the power-hungry fire eaters; the conservative planters with their manor houses; the hundreds of thousands of small farmers who had not yet repeated the bitter phrase that it was "a rich man's war and a poor man's fight," all joined to sustain the new government and fight its battles.

Likewise in the region loyal to the Federal Union there seemed an immediate unity of groups theretofore almost at one another's throats. Ex-President Buchanan, whose factional war on Douglas split the democracy and who was thought by many to have contributed as much to the actual causation of the war as had any other man, followed this splenetic vigor with flabby inaction in the months between Lincoln's election and his inauguration. But when the Confederates opened fire "Old Obliquity" promptly wrote his successor in the White House a note of support and confidence. Another "Doughface" President, Franklin Pierce of New Hampshire, likewise sent the new President a message of loyalty and devotion to the Union. Indeed from practically every northern group came instant and unreserved pledges of support: they could be counted on to the limit to preserve the Union and fight for the flag.

This state of affairs bears a striking similarity to that immediately following Japan's attack. Perhaps the sharpest and most immediate of the people's reactions was their sense of shock at the surprise assault. Apparently we had naively expected that whenever offensive action was taken we would take it. The

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

people had been unable (or unwilling) to translate into prospective deeds the reports given them day by day of the unsatisfactory nature of the negotiations in Washington. Doubtless they read the dispatches but they would not take to heart the significance of Japanese acts negativing their words. Therefore the sudden sense of burning indignation. Joined with this there was a national sense of shame over the unpreparedness at Pearl Harbor, a feeling soon increased by the successive defeats in combat. The average citizen had held close to his heart the belief that his America was "the greatest country in the world," that it could overcome any enemy or obstacle and that none dare attack it.

These elements combined to produce throughout the nation a seeming new unanimity for total war—unanimity among all groups, classes and types.

Within a few hours of the news of the Japanese attack most of those who, in and out of Congress, had led the effort to prevent the nation's active participation in the war began to issue statements that Pearl Harbor had put an end to debate. The Monday morning papers carried columns of statements from such questioners, appeasers, non-cooperators or isolationists as Senators Wheeler, Nye, Johnson etc., the leaders of the America First Committee etc., ex-President Hoover etc., that now there was national unity for all-out war. The next day Charles A. Lindbergh made a similar statement. These pronunciamentos led many columnists and other specialists in surface gossip to proclaim that despite the grievous losses in men, ships and planes from the treacherous attack it had been immensely fortunate for us that Japan had taken the aggressive against us because this had suddenly and completely made us whole.

It was a beautiful dream. The logic of it recalls that of a slogan which for years the National Association of Paint and Varnish Manufacturers used in its advertising, "Save the Surface and You Save All." True enough, there comes a surface appearance of unity at the outset of almost any war situation. But such appearance is definitely insubstantial, both in respect

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

to the time that it can be expected to persist and equally in regard to the depth of the sincerity of the professions of change which come from some of the leaders of the theretofore non-cooperating or opposing groups.

In the instance of the Civil War the emotional honeymoon was glorious while it lasted. Its high point, perhaps, was reached in July, 1861 when the Congress, belatedly called into special session, adopted a resolution saying that the object of the war was "the Union as it was and the Constitution as it is"; that upon the restoration of the pre-secession status the war should cease.

But the honeymoon harmony was short-lived. While no negative votes were cast on the resolution just cited, Charles Sumner, Thad Stevens and several others pointedly refrained from voting on it. And already the Radical Republican fringe on the Left had been demanding an immediate advance on the new Confederate Capital. Horace Greeley in his *Tribune* led a veritable brigade of editors, orators and preachers who shrieked to high heaven for an "On to Richmond" campaign. General Winfield Scott knew the raw Bluecoats were in no condition to wage a successful offensive. The President feared that Scott was right about it but he could not withstand the pressure of propaganda and reluctantly directed the General to order the advance. The result was the melee, sudden panic and fearful rout of First Bull Run.

Almost at the same time disaffection began to raise its ugly head among conservatives, constitutionalists and slavery sympathizers in Border and Northern States. To cope with this the Lincoln Administration suspended the writ of *habeas corpus* in Maryland and other Border States—an action that roused the wrath of Roger B. Taney, the nonagenarian Chief Justice, who filed a biting protest.

At about this same time a moribund secret order of the fifties was revived and set to work to oppose Lincoln through the Border States. It bore the mysterious title of the Knights of the

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Golden Circle, its local lodges were called "castles" and it grew like magic through Kentucky, Missouri, "Egypt" in southern Illinois, Indiana and Ohio.

So it was that by early 1862 the ferments of dissension and opposition had spread through most of the North. They continued almost until Lee's surrender. They were made up of several separate but somewhat overlapping groups, with varying motives for and degrees of antagonism to President Lincoln's policies. There were five main ones among them:

1. The active conspirator societies of the types of the Knights of the Golden Circle and its successors, the Order of American Knights and the Sons of Liberty. These had elaborate rituals and secret drills. They procured arms and ammunition and planned uprisings and insurrections. Actually they were the least numerous of the adverse elements. Interestingly enough Lincoln did not fear these folk—they did not seem to him of sufficient number or sufficiently representative of general attitude to be important. In this Lincoln judged shrewdly. The Knights proved stout in word but weak in deed. Effort after effort was made by daring Confederates to get them to rescue the many thousands of prisoners at Johnson's Island near Sandusky, Ohio, at Camp Morton in Indianapolis and Camp Douglas at Chicago, but in each instance the conspirators proved craven at the crucial time.

2. A loosely-knit group of almost actively disloyal politicians on the fringes of the secret societies. These men preached the letter of the Bill of Rights in circumstances in which its application would help treason to triumph. Clement L. Vallandigham of Ohio is an example of this group. Lincoln was more concerned with the effect of the speeches or political maneuvers of folk of this type than he was with flimsy plots of the secret orders.

3. The Peace Democrats. These were led by such men as Horatio Seymour, Governor of New York, General George B. McClellan, George W. Pendleton of Ohio, Thomas A. Hendricks of Indiana and Fernando Wood, mayor and political

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

boss of New York. They held Lincoln a minority choice and therefore not entitled to lead the people. They were willing to back military efforts, in accordance with law, for "the Union as it was and the Constitution as it is." Even in this, however, they were willing to sacrifice human lives only if the war could be won. If victory could not be had on the battlefields let there be a negotiated peace. Should the Federal negotiators secure a restoration of the Union, well and good. If not, let the Confederacy be recognized and the slaughter ended.

Nor was this all. Their faces were sternly set against the Radical plans to carry through a political revolution in the loyal United States. The successive moves for emancipation, the way the Joint Committee on the Conduct of the War smeared every Conservative General, the growing alliance of the political Radicals and the plunderbund of war contractors, industrial monopolists and Wall Street jackals, increased their dismay and alarm. They opposed these efforts to change the structure of the North's society and economy. When these efforts seemed unavailing they began to urge peace without victory.

Needless to say, this was the group that gave Lincoln chief concern. The states remaining in the Union were slow to sense that the war would be long, bloody and exhausting. Not until late in 1864 was there any certainty that the majority of the people of the North would back the fight to the finish.

4. Some of Lincoln's own intimates. There were men, like the venerable but still mentally alert Francis Preston Blair, who feared that military success was unlikely and that there should be a negotiated peace. Lincoln patiently allowed these men to go to Richmond to discover for themselves Davis' unyielding insistence on independence. And there were others, on the screwball fringe, who sought to high-pressure the President by threats of open political war. Horace Greeley did this in the Summer of 1864. Embarrassed and angered, the President made him the envoy to the Niagara Falls Conference and fixed on him the responsibility for its folly.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

5. Over and beyond these a powerful group of Lincoln foes, the Radicals far to the Left. They frothed at the mouth over his thesis that he would save the Union by whatever means he could, whether this meant emancipation, partial emancipation, or none at all. They regarded with equal disfavor his preference for the restoration of states to the Union rather than their reconstruction as conquered provinces. These Radicals of the stripe of "Bluff Ben Wade," Zach Chandler, Thad Stevens and Henry Winter Davis insisted on a new South in which the freedmen would be the kings and their former masters disfranchised and despoiled.

This group came to hate Lincoln about as bitterly as did the Copperheads. Many months before the 1864 presidential campaign they laid plans to put one of their own men in the White House in Lincoln's stead. Their first choice, Secretary Salmon P. Chase, made several blunders which forced him to withdraw. No really strong substitute was found but a rump convention was held to name John Frémont. In the summer of 1864 the Radicals issued the Wade-Davis Manifesto denouncing the President's restoration policy. As victory on the battlefield neared they redoubled their efforts to take over the control of the nation. It is not too much to say that Lincoln feared them much more than he did the Knights of the Golden Circle. And John Wilkes Booth played right into the Radicals' hands.

It must not be inferred from this thumbnail sketch of division north of the Potomac that Jefferson Davis, in Richmond, could boast of contrasting unity in the seceded South. The truth is that by the fall of 1861 the Confederate President was at loggerheads with many generals, governors and other holders of place and power. Moreover, the number of disaffected persons and groups continued to grow.

The central fact of the Confederate problem was that if this new republic were to maintain its independence it must centralize its command in a virtual dictatorship. But this fundamental condition to survival ran head on into a psychic problem: The Southern States had seceded, in theory at least, to sustain

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

States' Rights. This made the sovereignty of the State rather than slavery the issue. Consequently the whole Confederate vocabulary of presentation and persuasion was wrapped in this futile gossamer of unrooted logic.

Important leaders all over the Confederacy insisted on dispersion of authority. In prewar days Davis himself had been an eloquent verbalizer of such dogmas; when he became Confederate President his words returned to plague him. With practically no important exception the Governors of the Secession States insisted on home rule, home guards, home use of guns, munitions, clothing and food supplies. The controversies between Davis and such state executives as Zebulon Vance of North Carolina and Joseph E. Brown of Georgia grew white hot. Nor did the President at Richmond have his way except in the dialectic of correspondence.

The Confederate Congress was less able in personnel than that in Washington but as the speeches and actions of Senator Foote of Mississippi plainly showed, was no less ill-disposed toward the Executive. Legislative revolt did not mature so quickly on the James as on the Potomac but in January 1865 the Congress at Richmond made General Lee the Commander-in-Chief, repassing the act over Davis' veto.

Then, too, the disease of dispersion afflicted the armies. The South's forces never were fought as a single army disposing of reserves and matériel as major strategy demanded. Advantage was never taken of the interior lines of the Dixie States. Nor were the common people ever well persuaded that it was a poor man's war as well as a poor man's fight. From the autumn of 1861 desertions were extraordinarily large—the Confederates were forced to resort to conscription months before the Federals did so. Subversive activities were numerous, as in East Tennessee, Western North Carolina, Northeast Alabama etc. Davis was not spared the sorts of afflictions that confronted his opposite number in Washington.

Perhaps America today, engaged in the greatest effort she has ever made to preserve herself, affords no precise parallels to

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

any of these divisions just described. On the other hand it is quite within the realm of possibility that today's developing pattern may bear distinct resemblances to that which by 1864 had developed in the North.

Certainly there is a resemblance between the immediate situation after the Hawaii attack and that in the North after Sumter. Certainly in December there was a most unusual chorus of voices, insisting on the new vision and patriotism of all alike. In essence, however, the chief group that the formal war added to the vigorous affirmative element already in existence was made up of men and women theretofore unconvinced of the nearness or the largeness of the national danger. Had they believed the United States in danger they would already, by and large, have been numbered among those who were vigorously, affirmatively supporting the Administration program. By December 8th they knew; and once they knew they promptly joined the phalanx of those fighting for the commonweal.

But there had been other groups which, before the attack, had known full well the gravity of the situation and yet had opposed the Administration's purposes and program. With the Axis declaration of war upon us most of these sought to give the surface appearance of a change of view. How much dependence can be placed upon the sincerity and the lasting quality of this change of faith—or face?

Any attempt to analyze the elements of disunity in the nation today involves the appraisal of several imponderables. Let us begin by a close inspection of the phrase "Fifth Columnist." Many Americans have assumed that such a subversionist would look like a Japanese or a Teuton. But the Fifth Columnists in France, the Low Countries etc. have been native citizens, not outsiders—Quisling is a native Norwegian, not a German Nazi. Every native-born American is not ipso facto a patriot; nor has he universally been a patriot in any of the other wars this nation has fought.

From a variety of motives many Frenchmen aided the Nazi conquest of the Third Republic. Some industrialists feared the

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

specter of communism more than they did Hitler. Other men, power-hungry politicians, thought the defeat of the tottering republican regime would clear their path to power. Still another group, made up of extreme pacifists, would not cooperate with any war effort. Many men had been bought in advance with Nazi gold—or promises.

It is logical to assume that some among these motives might animate antiwar groups in the United States. There are some who would prefer a totalitarian state on the Hitler model to our democracy in transition. There are many more who have grown so bitter against the New Deal that they fear it more than the once distant Axis threat. For all the dire lesson of Poland, France, Norway, Greece, they cling to the delusion that they can do business with Hitler. Nor is this an extraordinary psychic perversion: since the beginning of Man's annals, self-deception has been among the most universal of the arts.

There are others upon whom the pull of racial and language ties exerts an undue effect. With most citizens of recent advent to our shores this is not a controlling factor, yet there is a small minority of disaffected. Some men seek to thwart the war effort because they expect that our defeat, or stalemate, would enable them to seize power. At the opposite pole from these are ambitious demagogues who criticize the national effort as too little and too late. These offer themselves to redeem the effort and bring the victory. And of course there are real isolationists who believe us unconcerned with other continents. In which among these and similar groups a particular individual should be classified makes little difference in the effect of his opposition, covert or open, to an all-out fight for victory.

It did not take long for the harmony of Pearl Harbor to develop sour notes. In the second week of December, papers pointed with pride to "a thrilling and uplifting sense of Union" and listed isolationism as the initial casualty of the war. Hearst's New York *Journal and American* exulted that the nation had joined combat "with the consent, approval and united support

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

of the American people." Even the Chicago *Tribune* said that "all that matters is that we are in the war."

In another fortnight, however, the old antagonisms began to creep out of hiding, albeit wearing garments of anything other than repentance. Efforts were made to focus our armed forces and our tools of war on home defense or on the Japanese alone; if sent to Europe, to go to the British and not the Reds, or vice versa. The Chicago *Tribune* trumpeted that crushing the Japanese must be "our single war aim." Hearst urged our Navy to "withdraw its tender care of England's shores"—that all our strength should go to "the conservation of the White Man's civilization." The New York *News* snarled that the defense of Hawaii was "job No. 1 for the American people." The dispatch of troops to Northern Ireland brought a broadside of unfriendly editorials from such sanctums.

The antagonistic press bitterly denounced the lack of immediate reinforcements to MacArthur and the Bataan defenders. And on the General's epic shift to Australia the *Tribune* sneered that these brave warriors "may fight the better for knowing that they are no longer forgotten men."

Nor has the attack been confined to the far-flung fronts. Many pressure groups began attacking their *bêtes noires* as foes to victory. Witness the storm over agriculture's parity bonus; labor's double time on Sunday; N.Y.A.'s machine tools for training; Donald Duck and Miss Chaney and Melvyn Douglas.

All this, be it said, was shrewd seizing of a rapidly developing change in the general public mood. In peacetime our society quite rightly has a diversity of purposes and objectives. In war this shifts to a unity of purpose—winning the war. The public shifts by instinct. Special pleaders for groups seeking undue differential advantage try to channel this new spirit to their own advantage. And the subversive opponents of the war effort work at it overtime.

Abraham Lincoln defeated a Fifth Column. Now Franklin D. Roosevelt has the same fight to make.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Electricity and the Brain

HUDSON HOAGLAND

THE complicated behavior of man—whether in reacting to Beethoven's Ninth Symphony or to a pricked finger—depends upon the organization of his nervous system. During recent years much has been learned about the nervous system, particularly the brain, both in health and disease, through studies of the electricity which it generates.

The gray matter of the brain and spinal cord is composed of billions of specialized cell units connected by fibrous filaments. Some of these fibers are long and extend in bundles, called nerve trunks, to sense organs in the eye, the ear and the skin. Other long bundles run from the gray brain centers to such motor organs as the muscles and glands.

All living cells constituting the organs of the body are continually taking in foodstuffs and oxygen from their environment, which in the case of animal cells is the blood plasma. Within the cells the oxidation of the foodstuffs, with the subsequent escape of most of the products of oxidation, takes place.

With this continuous flow of matter and energy it is not surprising that as a by-product small electrical potentials should be generated across cell walls between protoplasmic cell interiors and fluid environments. And as a matter of fact it has been known for more than a hundred years that living cells generate electricity. The cells are bathed in body fluids containing a variety of salts which dissociate to form electrically charged particles. These particles, or ions, in the form of electrically charged pairs, pass in and out across the cell walls. We should expect to find—and indeed do find—that as a result of this diffusion electrical potentials of the order of fifty to one hundred thousandths of a volt are maintained across the cell boundaries. If a cell or group of cells, such as those comprising a muscle or

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

nerve trunk, be stimulated mechanically or chemically or electrically, a sensitive electrical recording device can detect a change in the electrical state of the cell membrane. The nature of the change is a local removal of the normal charge. Furthermore, this local change of electrical potential may in itself serve as a stimulating agent on adjacent tissue and start an electrical pulse which is propagated over the tissue. For a short time after this wave has passed, the tissue cannot again be stimulated.

In the case of most nerve fibers the recovery of ability to respond to stimulation, after the passage of the wave, is complete in a few thousandths of a second. The long filament-like processes of bundles of nerve fibers, running from sense organs to brain and from brain out to muscles and glands, conduct these electrical waves at speeds varying with the diameters of the nerve fibers. The speed of the waves in man is about 300 feet per second in the larger nerve fibers. When the impulses reach muscles these are stimulated to contract.

If wires or other conducting electrodes are placed on nerve trunks or muscles the small electrical impulses that sweep over them may be picked up and amplified. Passed on to electrical recording devices, which either draw or photograph a curve of the small voltage changes, a permanent record of the electrical activity is obtained. Especially during the past fifty years investigations of nerve impulses have constituted an important branch of experimental physiology. These studies have taught us much about the nature of the conducted messages that determine our relations to the world around us, and have greatly aided our understanding of both the mechanisms of sense organs and the motor control exercised by the central nervous system over muscles and glands.

Heart muscle and muscles that move the skeleton contract only after they have been swept by an electrical action current, as these waves are called. Consequently it is possible, by following the action currents of the heart, to obtain a record that is an intimate reflection of important aspects of the heart action. Heart specialists have for years used the electrocardiograph to

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

detect the electric waves passing over the heart. Since disease of the heart modifies these waves they serve as useful clinical indications of trouble. Electrical waves from the heart are relatively so large that they may be recorded from virtually any two external parts of the body so long as those parts are on opposite sides of the heart.

In the electric eel, cellular action currents have, in the course of evolution, developed an interesting defensive use. The largest of these eels, *Gymnotus*, which lives in rivers of South America, sometimes attains a length of eight feet. Between its head and tail it can develop an electric potential of about three hundred volts that, when discharged, is sufficient to stun a man standing near it in the water. The electric organ of the eel, comprising more than half the bulk of its body, is made up of modified muscle cells each one of which is capable of generating about fifty thousandths of a volt. This is about the voltage of normal parallel skeletal muscle fibers in all animals but in the eel these electric organ cells act in series, adding up their voltage to make a powerful defensive weapon.

As early as 1874 Dr. R. Caton reported fluctuating electrical activity from the brains of animals. Other workers subsequently confirmed his observations. In 1929 Hans Berger, of Jena, published a series of experiments that gave to clinical neurologists a method of studying directly the activities of the cerebral cortex, the name given to the outer layers of the brain. These important layers of gray matter contain some 900,000,000 cells upon which the higher and more complicated behavior of man and other mammals largely depends. Berger demonstrated that pieces of metal or pads soaked in salt solution, making contact with the scalp, can, if attached to a suitable recording system, be used to pick up electrical activity originating in the cortical brain cells themselves. Conduction takes place through the skull and scalp. This electrical activity shows regular, continuous fluctuations of only a few millionths of a volt. The waves are much stronger if the electrodes are placed in actual contact with the brain surface through holes made in the skull.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Not only man but also animals show regular electrical brain rhythms. Surprising as it is we see from this that, in spite of its complicated organization, orderly and comparatively simple rhythmic electric brain activity can be detected from wires attached to the scalp.

During the past decade work from many laboratories has related the electrical activity of the brain to aspects of both normal and pathological behavior, to brain physiology and even brain chemistry. Electroencephalograms, as brain wave records are called, have consequently proved of interest to psychologists, physiologists and biochemists as well as to neurologists and psychiatrists. Records are best obtained from the human subject when he is resting with closed eyes. The most obvious rhythms are usually smooth, regular waves occurring normally at a frequency of about ten per second and at an amplitude of twenty to a hundred millionths of a volt. These regular (sinusoidal) waves, known as alpha waves, are ordinarily most clearly observed over that part of the brain cortex, in the back of the head, known to be concerned with vision, although other areas show them too. These waves are the resultant of electrical discharges from thousands of cortical cells "firing" synchronously. Opening the eyes breaks up this uniform rhythm, probably because the numerous individual cortical brain cells, when called on for the details of the visual process, are no longer able to discharge in rhythmic phase with each other.

Normal individuals show much person-to-person variation in the amount, amplitude and regularity of alpha wave activity. While reclining with eyes closed a few show no detectable evidence of it whereas a few produce these waves continuously. Most people, however, fall between these two extremes. The individual wave patterns, moreover, are so uniform for a given normal person that he can be identified with little error from the form of his brain wave records. Dr. and Mrs. Hallowell Davis have subdivided normal individuals into fairly definite constitutional types according to their electroencephalograms and a considerable body of evidence indicates that certain aspects

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

of that illusory but important thing known as personality may be related to extremes of patterns. The Davises have shown that identical twins have closely similar patterns of the same type. But no relation has been found between brain waves and the normal ranges of human intelligence.

In several laboratories, including our own, studies have been made of the effects of a variety of chemical agents that either speed or slow the rate at which sugar is burned by the brain cells. We have found that one of several factors determining the frequency of brain waves is the rate of sugar metabolism going on within the brain cells. Within certain limits relative changes in alpha brain wave frequency may serve as a measure of the effects certain drugs and hormones and of changes in blood sugar, blood oxygen, carbon dioxide, and temperature on the metabolism of the brain cortex. In addition to changes in the alpha wave frequency produced by these chemical agents, other pattern modifications usually occur. Measurable irregularities in the wave forms may also appear. With falling brain metabolism and also with increase in blood alkalinity the waves become slower and more irregular. Depending on its depth, normal sleep also produces a series of orderly, characteristic changes in the brain wave patterns. In fact drowsiness on the part of subjects reclining comfortably during the time of brain wave testing is an especial bugbear to the recorder since the appearance of slow waves, typical of the drowsy state, may give an entirely false impression of the true pattern of the particular individual's electroencephalogram. Changes somewhat similar to those occurring in various stages of normal sleep have been encountered in other conditions of impaired consciousness caused by anesthesia, insulin coma and asphyxia.

Just as electrical records from the heart (electrocardiograms) have been found to be useful diagnostically, so electroencephalograms have been found to be of value in diagnosing certain types of brain pathology. W. G. Walter in 1936 described a method, since widely used, for localizing lesions of the cerebral cortex due to tumors, infections, concussion and apoplectic stroke. A

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

tumor or other injury does not generate abnormal electrical waves but by distorting the neighboring brain tissue it induces in it abnormally slow and high voltage waves that sweep over the site of the injury. The method of localizing the site of the lesion for operative purposes is simple. Electrodes are attached to the scalp at regular intervals along each side of the head. Ordinarily simultaneous records are obtained from three or more pairs of these electrodes using three or more independent recording units. The abnormalities recorded are most pronounced directly over the cortical lesion, thus making possible accurate delineation of the area for subsequent surgery. Dr. R. S. Schwab has recently reported on 115 typical cases at the Massachusetts General Hospital in which brain wave records appeared clearly to indicate the presence of a localized cortical lesion. Of this group 84.5 per cent showed correct localization within the area as determined by subsequent surgical incision or post-mortem examination. When combined with other diagnostic procedures available to the neurologist, brain wave records have thus proved a valuable additional aid to him in localizing cortical lesions. This technique is, however, not helpful for deeper brain lesions since these may not modify the cortical waves at all or may produce only diffuse and badly localized disturbances over a wide region of the brain surface.

In general the brain waves of normal persons and of psychotic patients show no regularly recurring differences. The writer and others, for example, have studied electroencephalograms of schizophrenic or dementia praecox patients. While we have found no differences in records that would enable one to say whether a person is sane or not, we have found that schizophrenic patients show on the average somewhat more irregular slow waves (i.e., more waves of frequencies of less than 10 per second) than do normal persons. Of more interest is the fact that in some schizophrenic patients there may be considerable day-to-day variation in the slow wave activity as measured by a slow wave index, which takes into account all waves longer than the regular sinusoidal alpha waves of about ten per second. These

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

variations are sometimes well correlated with independent psychiatric diagnoses of the patient's day-to-day condition. When the patient is improving his slow wave index declines; when he is getting worse it rises. The index often changes prior to any other observable change in the patient's condition.

Perhaps the most striking application of electroencephalography has been in the field of the epilepsies. *Petit mal* epilepsy involves sudden and unexpected lapses of consciousness on the part of the patient that may be of brief duration and not involve easily-noticeable disturbances of behavior. *Grand mal* epilepsy is a more distressing form since it involves lapses accompanied by violent convulsions in which the patient may do himself considerable bodily harm. In a third type of epilepsy, the psychomotor type of seizure, the patient does not quite lose control of himself or become unconscious but may engage in a transient sequence of bizarre and apparently meaningless acts.

We are indebted to Dr. and Mrs. F. A. Gibbs and to Dr. W. G. Lennox for extensive studies of the electroencephalogram in relation to the epilepsies. These workers have demonstrated that the epileptic seizure is always accompanied by a severe electrical "storm" (which they refer to as a "paroxysmal cerebral dysrhythmia") in the central nervous system which is dramatically reflected in the brain wave patterns. In each of the three main types of seizures the wave patterns are characteristic. During the *petit mal* seizure, for example, regular large waves at a frequency of about three per second sweep over the cortex. These large waves are separated by a brief, spike-shaped wave, so that we have a sequence of wave and spike, wave and spike on the record. The convulsive seizure typical of *grand mal* is associated with the appearance of sharp fast waves of relatively high voltage, with or without an accompaniment of slow irregular waves. During intervals between either *grand mal* or *petit mal* seizures, episodic waves characteristic of the type of epilepsy to which the patient is subject may usually be detected in the electroencephalogram. Often these "abortive" or "larval" seizure patterns progressively tend to increase in prominence

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

prior to a new seizure, making it possible to predict roughly hours or even days ahead when the next seizure is likely to occur and of what type it will be. The most characteristic electrical rhythm in the psychomotor type of seizure has a frequency of about six waves per second and displays curiously shaped unsymmetrical patterns. Whereas many patients suffer from only one form of epilepsy, others may display two or even all three of the characteristic patterns during a seizure.

Not only are brain waves of clear diagnostic value in the epilepsies; they have recently come to be of help in determining the efficacy of drugs used to prevent seizures. By observing changes in brain wave patterns after medication, it is now possible to reach conclusions quickly and accurately concerning a drug's efficacy for a given individual epileptic. Previously it was sometimes necessary to wait for months to decide on the value of an anticonvulsant drug for a given patient.

Some persons who have never had an epileptic seizure may exhibit one or the other of the three characteristic electrical dysrhythmias in a mild form. Lennox has suggested that these persons may be especially prone to develop epilepsy following brain injury. Dr. and Mrs. Gibbs have established that the epileptiform brain wave patterns are hereditary and may be found among close relatives of the patient. When two persons, each showing epileptiform patterns, marry, the danger of having epileptic offspring is enhanced even though neither parent may ever have had a seizure. A person showing epileptiform patterns may, however, with little danger to the offspring, marry a person free from epileptiform brain waves.

By recording electrical activity under experimental conditions from electrodes placed at different positions in the actual brain tissue of animals, much has been learned about the functional interrelations of parts of the brain. These methods of studying brain physiology by tapping the electrical activity of the living tissue are relatively new and will doubtless continue for some time to contribute to our understanding of that most remarkable of all organs, the mammalian brain.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Can We Educate for Democracy?

CHRISTIAN GAUSS

Address before the American Association for the Advancement of Science, December 1941, Dallas, Texas. This is seventh in the series presented annually by Phi Beta Kappa.

NO COUNTRY has ever possessed a stronger faith in education than we in America. We, the professors who owe our positions and status to this faith, have been quite willing to believe and to have the country believe that education is the salvation of democracy. The time has clearly arrived when as Americans we should reexamine the assumptions on which we have based our procedure.

Only rarely have heretics arisen in our ranks. Older professors can still recall the shock we experienced when early in this century at a meeting of one of our learned societies the late William James confessed that he had come to have very serious doubts as to whether education, as such, really was the salvation of democracy. He explained that for some years he had read the Boston papers and whenever he had found a story of subversion of democracy, of graft or political corruption, and had continued reading long enough he almost invariably discovered that the master mind out in the offing was a college graduate and often, alas, a graduate of his own college, Harvard.

We educate men for the law, for medicine, for engineering, for scientific research. Russia has educated for communism; Germany for Nazism. It is possible, in some measure at least, to educate for citizenship in a democracy. The question is not, can it be done, but have we, the professors, done it? We must, however, be careful not to put the cart before the horse. It was not communistic education which begot the Soviets nor Nazi education which begot Hitlerism. It was the other way around. Only after the Soviets and National Socialism had established their political regimes were they able to educate for them.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Let not the spirit of the professor be proud. In our age political regimes usually dominate educational systems. It is easier to educate for a political regime, even democracy, after it has been soundly established. If as teachers we wish to educate for democracy we must first as citizens do everything in our power to make democracy an effective political system.

Historians of our earlier period never tire of comparing the level of political capacity in our Continental Congress and Constitutional Convention with the lower level of today. For educational purposes, if for no other, we must send abler men to the Senate and House and help to create for the representatives of democracy a higher degree of respect. The intelligent student does some thinking for himself. He will discount heavily all he is told in-course so long as we in our communities send to Washington egregious nimcompoops and political adventurers. If we as citizens allow democracy to become weak, education for democracy is weakened as well. That error must be corrected at the source by us as citizens and not left hopefully to our schools and colleges. So, too, if we wish our students to believe in democracy we must make democratic processes effective on our campuses. Like charity, democracy begins at home. When we ask the question whether our higher educational system has disposed college graduates to take a more active interest in the actual working of the democratic process in their communities, the answer must be in the negative.

Dean Mosher of Syracuse has made a survey of the character and educational background of 4000 local party committeemen in the cities of New York State. These committeemen form the base of the democratic pyramid and give democracy its life and direction. Of this group 55 per cent had never gone beyond grammar school, 33 per cent had enrolled in high school and only 12 per cent had ever received any college training. This figure should probably be discounted further since 40 per cent of those who possessed any academic training were lawyers and there are those uncharitable enough to suggest that young lawyers sometimes seek election as committeemen

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

not so much to further democratic government as to further their private legal careers. It seems that the education our universities offer does not encourage our graduates to take off their coats and do their part to make democracy work.

Another fact should give us pause. The German universities in 1933 were still in many respects like our own higher institutions of learning. They offered very little resistance to the advance of Hitler's antidemocratic movement—far less, for instance, than the Catholic or Protestant clergy. They did not even make a respectable attempt to protect freedom of speech or freedom of inquiry within their own faculties.

The liberal tradition was the arsenal from which the democracies drew not only their forms of procedure but also their moral fervor. If some of the elements in that tradition have been lost or obscured it is natural to inquire whether there has also been a weakening in our education for democracy.

We cannot here discuss in detail all the elements entering into liberalism. Most of us would probably agree with the recent historian, George W. Sabine, that "throughout its history, liberalism has been first and foremost a belief in the supreme social value of intelligence" and also a belief "in the great utility of intelligence or reason as a force in social and political problems." The reason in which it believed was not the disembodied reason of angels nor yet the reason of an expert or a Fuehrer, but reason incorporated in animal man, limited by emotional needs and the flesh and blood urges conditioning the lives even of men of good will. It was assumed that this faith in collective reason would constantly make for the curbing of arbitrary authoritarian processes, the extension of the suffrage and the acceptance of majority rule.

One further point calls for particular emphasis if we are to understand the essential nature of the democratic process. If the majority cannot be expected to be right and the decision of majorities is to be accepted provisionally only, why waste time in cumbersome and often unedifying elections? The central aspect of the liberal tradition is too often overlooked and

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

too often misrepresented. In that tradition intelligence is regarded as so important an element in human personality that you and I, the butcher, the baker, the candlestickmaker, have the right to be convinced and the right to protest until we are. It is not fair to persons merely to order them about, to push them around. It is not fair, as Kant believed, to treat men as means. The person is an end in himself. That is why you must do unto him as you would have him do unto you. This element in the liberal faith lies behind our Bill of Rights and guarantees us freedom of conscience, freedom of speech, freedom of discussion. These rights are vouchsafed not as a matter of expediency. *They are inherent in the nature and dignity of man.* When you deny them you maim and cripple a human soul. You treat him not as a citizen but as a slave.

These rights, then, are not political rights only. They are something far more important. They are *moral rights* and, above all, *moral obligations*. In respecting them we pay our tribute to the nature of man as understood by our greatest teachers and by the founder of that religion which lies behind our Western civilization. The refusal to accept these moral concepts is the essence of the revolt against the liberal and democratic tradition. It is these rights and obligations that we are fighting for and if we are educating for democracy we must make this point clear to every student in every school and college.

All of us will admit that the movement toward liberalism and democracy was strong in America in the years leading to the Declaration of Independence and the formulation of the Bill of Rights. It will be worth our while to examine briefly the doctrine that informed them, and then to consider the major changes that since 1776 have been introduced into our educational system and in what respects they may be operating to weaken that doctrine.

When we reread the Declaration of Independence, the Constitution with its Bill of Rights, it is immediately evident that the aim of the Continental Congress and of the Constitutional

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Convention was not to found a nationalistic state but an ideal democracy. Such rights as they seek to establish are not limited by considerations of race or creed. Neither the word *Anglo-Saxon* nor the word *American* occurs in either document.

The most striking sentence and the most frequently quoted is that in which the essence of the liberal tradition, the "inalienable rights of man," is affirmed. These rights are claimed not for the members of any particular nation-state but for all mankind. Jefferson did not begin "When in the history of English colonies." His frame of reference was much larger—"When in the course of human events." He believed his Declaration was made necessary by "a decent respect for the opinions of mankind." Such convictions constitute what the historian Carl Becker and many others have called the Spirit of 1776. The justification for *liberté*, *égalité*, *fraternité* in the French Revolution is drawn from this same larger frame of reference. That was the essence of the liberal tradition in the days when our democracy was founded.

The most important single phenomenon in the subsequent history of our Western culture is the ever-increasing attempt to substitute the nation for mankind as the point of reference from which economic and political systems are to be judged. This has been true both in America and abroad. Historians are fond of pointing out to us the great gains made by the spirit of liberalism during the 19th century. Many of our departments of history and government imply that liberalism and nationalism go hand in hand. I believe they are wrong. It is true that liberals almost everywhere gave their support to the movements making for the formation of nation-states. This was so because in particular cases this movement was also a struggle for emancipation from older oppressive forms of authoritarianism.

If we are to educate for democracy we must make it plain that liberalism as exemplified in our Declaration of Independence and Bill of Rights and nationalism as we have seen it in operation in the 20th century are irreconcilably opposed.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Nor can we continue to tell our students that all this was happening in benighted Europe only. We must point out that it was happening in the United States as well. If our aim was once to make of these states an ideal democracy with a world frame of reference, there is unwelcome evidence to indicate that we have become an exclusive nation-state. Anyone who reads our daily press or follows the investigations conducted by Congressional committees may well reach the conclusion that the greatest crime today is not to be guilty of undemocratic, but to be guilty of un-American, activities. Democratic and American have ceased to be synonymous. Much as we may dislike to admit it, we must face the fact that nowhere has the attempt to equate the virtues of a particular nation with the highest good gone further than in Germany and the United States. Much as it may hurt to have to confess it, only we and the Germans have a word for it. *Deutschtum* and *Americanism* represent to a large part of the German and the American populations the summation of all the virtues. In pre-Vichy France no such noun as *Frenchism* had yet gained currency. In Great Britain, *Englishism* or *Britishism* still suggests the inadequate and the provincial.

Anyone who with an open mind compares the college catalogues of 1776 with college catalogues of 1942 will make a striking discovery. It is this. We have seriously altered the spirit of our higher education. In the past 75 years at an ever accelerating rate we have been substituting the historical and the nationalistic standpoint for what may properly be called the humanistic, or philosophical. By humanistic I mean the spirit in which the Declaration of Independence and the Bill of Rights were conceived. The humanists who conceived them believed that in spite of all divergences it was possible for men of good will to formulate aims and principles which corresponded to the inherent needs of human nature—which possessed, in other words, a common human denominator.

Without in the least advocating a return to the limited curriculum of '76 I have no hesitation in saying that if we are to educate for democracy in 1942 we must return more closely to

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

its spirit. The curriculum of all our colleges during the first half century of our republic and in many of them until much later conformed to a readily recognizable central idea. The student was to be given the best that had been known and thought in the world in religion, literature and philosophy. This would provide him with standards for discovering what was good, what was beautiful and what was true. It was assumed that these concepts were generally valid.

These subjects were called the humanities since it was assumed that they possessed a common human denominator. The colleges recognized that it would be as idle to speak of humanities without such a common basis as it would be to speak of science if there were no discoverable principles or laws. Philosophy, as the motto of Phi Beta Kappa has it, was a unifying principle and the guide of life. Although Greek and Roman literature were studied they were taught not by professors of Greek or Roman literature as such but by professors of belles-lettres who believed that masterpieces in all languages were marked by a recognizable kinship. That scholarship and teaching were often hopelessly inadequate is here beside the mark. We are dealing here only with the spirit in which education for democracy was conducted.

History as a particular discipline calling for specially trained professors was conspicuously absent. The first professorship of history, as such, was not founded until 1838 when Jared Sparks was appointed at Harvard.

A glance at catalogues of 1941 shows how completely we have changed all that. Of the courses in the "cultural subjects" the immense majority are now presented not from a philosophical or humanistic but from an historical and nationalistic standpoint. Literature, even great literature, is assumed to be the product of incommensurable nations and an ever-changing *Zeitgeist*. Today, we teach courses in Italian literature of the 14th century, French literature of the 16th, German literature of the 18th and American literature of the Colonial period. The same is true of courses in philosophy or in innumer-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

able nationalistic cultures. No common human denominator is assumed to exist. The emphasis is everywhere upon the unique and the incommensurable.

We have sought to find the essential meaning of life not as our forefathers did, in those elements which unite men, but in those which divide them. These differences are assumed to be irremediable. When we professors of French literature expound Balzac or George Sand our student is taught to believe that their peasants are irreconcilably French. We overlook as insignificant the fact that these French peasants with their land hunger and attachment to the soil are fundamentally and in spirit far more like our Vermont farmers than they are like the Parisian *rentiers*.

Much may be gained from historical analysis properly applied but unless it is counterbalanced by the application of unifying principles it will remain what it has become in our colleges—the most powerful dissolvent of those humanistic convictions which gave us the Spirit of 1776.

It is interesting to note that in the opinion of the greatest living German historian, Meinicke, the modern historical movement—*Historismus*—began with Möser who wrote his history of Osnabruck in 1768. Möser is credited with having founded the modern school of history because he denied that there ever was any such thing as a "natural right." There are only specific rights arising out of particular situations for reasons discoverable by the historians. With only slight exaggeration this amounts to saying that if you are born a slave there is historical warrant for that fact and that's all there is to it. You should remain a slave, wait quietly until some historical force emancipates you: then only will you have a historical right to be free. The rights men enjoy, in other words, are not moral rights. They are the momentary historical products of time and geography. Notions very closely akin to these lie at the basis of much, if not most, of the historical teaching we have substituted for the older humanities. Working in this spirit our historians, even our American historians, do not ex-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

plain to our students the principles of 1776. They explain them away as the momentary product of 18th-century rationalism. This was, they tell us, a limited and inadequate philosophy and we cannot blame Jefferson and the Signers for accepting it. Most intellectuals of those days did. But history has changed all that. America is today something quite different. It is not the attempt to realize general principles. The United States is something particular and unique, the product only of its own particular and unique past. Germany, Italy and Japan are also explained as unique products of their unique pasts: what they have been doing has therefore been none of our business. It was the prevalence of this doctrine, particularly in our departments of history—even American history—that explains the failure of our colleges to lead the country or to prepare it for the ordeal it is now facing in common with other nations.

The curriculum of our colleges of 1776 gave relatively little space to work in the sciences. The problem which science has forced upon education for democracy is of a quite different nature. Science has not altered its attitude toward the materials with which it deals. There is nothing in the method of the modern scientist that would greatly have astonished the student of "natural philosophy" in 1776. Our problem lies in the fact that the scientists have accomplished not too little but too much. For an understanding of the role that science has played in shaping our contemporary culture there is probably no safer guide than George Sarton, the distinguished historian of science. Sarton has no doubt that scientific knowledge has progressed, and uses an excellent index to prove his point. Darmstaedter's *Handbook for the History of the Natural Sciences and Technology* lists in succession all the important scientific discoveries made in these fields from 3500 B.C. to 1908 A.D. The left hand column lists the historical period covered. The right hand column gives the percentage of significant scientific discoveries made in that period. Here, briefly, is the summary of his findings:

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

35 centuries B.C.	3 per cent
Cents. I to XV	4
XVI	3
XVII	5
XVIII	11
XIX	67
Years 1901-08	7

Of the total number of scientific discoveries listed only 3 per cent were made in the 35 centuries B.C. Since Darmstaedter's list ends with 1908 let us confine our comparison to the 19th century.

In that single century scientists made more than 22 times as many significant discoveries as were made in the 35 centuries which included all the achievements of the ancient Chinese, Persians, Chaldeans, Egyptians, Greeks and much of the work of the Romans. What this means in terms of man's increased mastery over nature staggers the imagination. Among these discoveries were of course many that have resulted in labor-saving devices, thus increasing the potential output of the individual man everywhere. There was also much that we might call "dynamite" in these discoveries; but perhaps most significant of all were those making for more rapid and extensive transportation and communication. Man's mastery of earth's resources on so unprecedented a scale clearly called for an extension of our narrower frames of nationalistic reference in economics, politics, social institutions.

We might sum it up as follows. Non-nationalistic science working cooperatively, recognizing no frontiers, has confronted nationalistic politics with a problem which nationalistic politics has failed to solve. The means for vastly increasing human welfare have been at hand for 40 years. There has been some increase in individual well-being in some countries and some fields. We need not accept the lavish estimates of the technocrats but the actual increase is ridiculously small, out of all proportion to the possibilities open, and the sense of personal insecurity and frustration has increased throughout the world.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

It is this sense of deprivation, of benefits withheld, which has begotten envy and suspicion between class and class, between nation and nation. The laborer blames his employer, the employer blames his government, the government blames other governments or a vague "international situation." In the language of pre-depression optimists, in this 20th century humanity seemed all set to cut a colossal melon and nothing happened. Without attempting to list all the factors involved we recognize of course that in all countries much has been going into socially useless bombers and battleships, weapons far more destructive and more expensive than any we had ever known before; but most of our productive potentialities remain undeveloped because of imagined lack of outlet and a very real and quite understandable lack of confidence in the future on the part of producers.

The debate between the have and have-not nations, Japan's insistence upon her exclusive right to exploit a "co-prosperity sphere" in Asia, Hitler's demand for *Lebensraum* and a new order, Soviet communism, our social-security legislation, our labor troubles—all point back to this same general situation. Owing in substantial part to a loss of confidence in a future potentially far richer than any era in the past, the liberals' earlier faith in the possibility of human progress has largely disappeared.

Those who have read some of the addresses made by the presidents of the American Association for the Advancement of Science before our own economic depression became serious may have noticed that the dominant note in many of them was that we were rather rapidly approaching the millennium. They intimated that if intellectual workers in other fields would only take the scientist's objective and disinterested attitude toward the problems of political and social organization—and sometimes even toward their own personal problems—these would soon be solved. I have not noticed that in faculty meetings, when a problem concerning the rights and privileges of a scientific department or professor were called into question, the scientists

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

were any less impassioned in defense of their prerogatives than the plain humanist or historian. Nor should we expect it.

The great body of scientific research, properly so-called, deals with impersonal problems and it deals with them impersonally, which means amorally. And that is as it should be. We cannot expect that the average man or even the scentist who is a parent or citizen will remain unmoved when his child or his neighbor is being beaten or robbed. What progress men have made toward liberty and justice has only been made because they hated slavery and injustice. Higher education must consider whether the most serious single cause for the weakening of the liberal tradition does not lie precisely in the fact that humanists and historians, cowed by the success of scientists, have developed an inferiority complex and have become afraid to pronounce moral and esthetic judgments. They have forgotten that the liberal tradition rested upon moral principles which it was their particular duty to defend. The pretensions of the newer, anarchical, totalitarian or nationalistic states can be curbed only if we reaffirm those principles.

When a robber state attacks its neighbor in the more closely knit world that science has created, neutrality is not a virtue but makes for international anarchy just as the indifference of the citizen makes for municipal corruption. It is an illusion then for scientists to believe that the application of their methods can make men better. No matter how much you prolong his life or increase his goods, Adam remains old Adam. Even in the Garden of Eden he wanted more than the Lord felt it safe to give him. He probably always will want more. Science cannot make him better. It can only make him better off. That is all we have a right to expect from the scientist; and so far as the relations of nation to nation and man to man are concerned, at this point some one else must take over.

Some years before the outbreak of the second world war it became clearly evident that something was seriously wrong with our chaotic modern culture. An English bishop earnestly advocated a moratorium upon scientific research. He found much

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

support in our panic-stricken world. Let us admit that the results of scientific research may be used for good or ill; yet the demand that the very branch of human activity which had been looked upon as the hope of the world must cease, may well be regarded as an indication of the approaching bankruptcy of our civilization. When it has ceased to be safe for men to understand the nature of their world, that culture which began with the Greeks and of which our own is a part is nearing its end.

Science, then, is the problem child or the *enfant terrible* of our modern culture. It is forever doing the unexpected and calling upon us for radical readjustments to new situations for which our humanists have dismally failed to prepare us and which our regressive nationalistic, political establishments, including the democracies, are increasingly unable to meet. Instead of lamenting the "decline of the humanities" and assuming that this decline can be corrected by forcing students to take more courses in nationalistic literature or philosophy or history, we must call for an earnest, honest reappraisal of the function of humanistic studies in the light of the unrealized possibilities opened to mankind. It is our failure to realize these possibilities that has led to the "bankruptcy of liberalism" and the "crisis of democracy." It is not the devil that has brought us, the innocent and virtuous humanists, to this pass. It is our own lack of vision. If the humanist has a function it is to evaluate and tell us what elements in life, what creations in art, are worth while, have a bearing upon the welfare of man. This means *passing judgments*, an art the humanist has forgotten. If there is anything admirable to us in the life or the philosophy of Socrates, that is where our emphasis belongs. If there is anything treasurable for all men in Sophocles, or Virgil, or Dante, or Cervantes, or Molière, or Goethe, we must seek it out. The whole trend of our higher education has been to escape from this necessity and to take refuge in watching the tumbling bits of colored glass forever rearranging themselves in the fascinating but meaningless kaleidoscope of history.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

That is why the members of the leading school of historical thinking in the 19th century could tell us proudly that "there can be a history of philosophy but no philosophy of history" and why one of our best-known contemporary philosophers, Ortega y Gasset, can tell us that "man has no nature: he has only a history."

For this reason the humanist has not known what to do with primary religious or ethical data like the Sermon on the Mount. They do not find admission to courses in the history of philosophy or in the history of literature. It is only by accident that the Bible comes into English literature via the King James version. It enters not by virtue of its significance but only of its language. It is such magnificent English! But since that translation was made before our colonies began to produce literature of their own, this book in many cases finds no place whatever in courses on American literature or American culture. We leave such documents to departments of religion. And departments of religion are not central; they are marginal to our modern curricula. We do not know whether professors of religion are humanists or not. In many cases they are not. They too find safety in making the historical approach.

From the standpoint of our situation today the most grievous error of our higher education was our failure to grasp the nature of the relationship between liberalism and democracy on the one hand and nationalism on the other. This confusion to which our over-historicized educational system contributed reached its height in the discussions before and during the shaping of the Treaty of Versailles. There has been much criticism of that Treaty. It is impossible to defend some of the conditions imposed upon Germany but it is certainly not those conditions alone that have brought us or Germany to this pass. Italy and Japan were on the winning side in 1918 and the Falangists in Spain were not involved in that world war. Something had gone wrong within the body of our culture. The hopeless contradictions of that Treaty grow out of our effort to "save democracy" by erecting as an absolute principle the "right of

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

self-determination." The nation could do as it would within its borders. It could establish a state religion and persecute dissenters. It could build tariff walls as high as it pleased. It could drive citizens beyond its frontiers and bring non-citizens inside. We imagined that such national frontiers were fixed and final. They were never of less importance. We are only beginning to realize that unless certain minimal moral rights are guaranteed to all peoples—which means a limitation on national sovereignties—democracy is no longer safe.

It is a curious fact that all this had happened at a time when the liberal tradition seemed to have proved a fundamental assumption in its doctrine: that man's intelligence, his reason, is his highest quality. Science, accepting that principle, was already offering us a new earth, a new and far richer world. It had proved the fundamental principle of the Greeks—that the world we live in constitutes a cosmos. It is a world governed by laws discoverable, in part at least, by the human reason. Modern science, as the greatest cooperative enterprise along non-nationalistic lines upon which man has ever embarked, has proved itself the most successful activity of the human spirit.

As someone has said, the great tragedy of our time is that we are citizens of the world and do not yet know it. "United we stand, divided we fall" is truer of our democratic nations than it ever was before. Neither Western civilization nor peace is possible in a world that refuses to recognize any common underlying principle. We knew this in 1776. The world of man as well as the world of things is a cosmic world. It too is governed, in so far as it can be governed at all, by laws, moral laws, which the individual man and nation may at times violate but which if consistently ignored by men and by nations spell the ruination of our democratic culture. In their enthusiasm for the purely analytical, historical approach which offered nothing constructive, our colleges have forgotten this lesson and have often failed to impress it upon the generation now coming on. It is only when we make this moral truth central to our teaching that we can effectively educate for democracy.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

In the Workshop

Refugee Scholars in the United States

HERBERT SOLOW

In 1640, one year after he came to Massachusetts, Henry Dunster, an immigrant Hebraist, was made the first President of Harvard College. The passage of three centuries has seen such a flowering of American genius that today advanced students of all countries are in the United States completing their training. Yet even today—and despite the war—foreign scholarship can contribute much to American sciences, both of itself and through the process of cross-fertilization. Often the individual specialist from abroad, far from displacing an American "competitor," serves as a crystallizing force around which American colleagues cluster and flourish. Isolationism in science and scholarship under such conditions —and they are the eternal conditions of any culture—were fatuous, indeed.

When, in 1921, Congress first adopted a policy of selective immigration based on national quotas, it sought to remove obstacles to the importation of certain special talents, including those of professors. When, in 1924, it adopted an immigration act designed to be permanent and which is still the law of the land, it transferred most of these special types of immigrants to the framework of the quota system. It left in a special category, however, two types—clergymen and scholars. Section IV (d) of the Johnson Act of 1924 provides that, regardless of the state of the quotas, immigration shall always be open to:

> . . . an immigrant who continuously for at least two years immediately preceding the time of application for admission to the United States has been, and who seeks to enter the United States solely for the purpose of, carrying on the vocation of minister of any religious denomination, or professor of a college, academy, seminar or university; and his wife, and his unmarried children under 18 years of age, if accompanying or following him. . . .

Amusingly and significantly, when this section was debated in the House, only one amendment was proposed. Chairman Johnson, on behalf of the committee in charge, moved to insert a comma after "college." Adopted by a Congress which militantly declared its desire to preserve all possible aspects of the American status quo, signed by a Republican President, Calvin Coolidge, who embodied the ideals of horse-and-buggy Americanism, Section IV (d) cannot be regarded as anything less than an ex-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

pression of sound policy, rooted in ancient American experience. When, in 1926, the same President signed a special Act to exempt from the quotas women who desired to immigrate in order to join husbands who had come in pre-quota days as professors, the old principle of encouraging the importation of foreign scientific talents was again reaffirmed. One may safely say that all responsible scientists and scholars, their institutions and their organizations, always have and do now warmly endorse this principle and its expression in Section IV (d) of the Immigration Act of 1924.

With the Nazi seizure of power in 1933, there came to the American scholarly world an opportunity unparalleled in history. Europe's loss—scientists and scholars dismissed as obstacles to racial, religious, political and philosophical totalitarianism—became our gain. Many an American university added to its staff one or more German specialists. In Princeton the Institute for Advanced Study richly fortified its staff by adding European refugees—among whom Albert Einstein is the best known.

Relatively young, standing on the threshold of a new experiment in graduate study in the social sciences, the New School for Social Research under Alvin Johnson was able to make special use of this opportunity. And as Hitlerism extended its sway and the opportunity expanded, the School kept pace with events, until it had created its Graduate Faculty, the University in Exile, which, in addition to Americans, has professors who bring together the scholarly traditions of pre-fascist and anti-fascist Germany, Austria, Italy and Spain. Such is the character and achievement of this group, that the Board of Regents of the State of New York last year granted it an Absolute Charter, carrying with it power to confer the doctor's degree.

The next stage in this general development, carried on by the Refugee Scholars Fund, is briefly described as follows in the *Review for 1940* of the work of The Rockefeller Foundation by Raymond B. Fosdick, president:

> In 1940, with the invasion of Scandinavia, the Lowlands and France, and the intensification of war in England, a new kind of problem arose, necessitating a new type of program. Many eminent scholars, some of whom the Foundation had already rescued from Central Europe between 1933 and 1939, suddenly found themselves not only unable to continue their work, but often in extreme personal peril. The situation was an emergency one. Long negotiation such as was formerly necessary to secure permanent placement was now out of the question. In order to save these men, action had to be taken at once.
>
> With the assistance of the New School for Social Research, of which Dr. Alvin Johnson is the Director, The Rockefeller Foundation instituted a rescue program, in which other agencies, notably the Carnegie Corporation and the Belgian American Educational Foundation, have participated. Grants sufficient to provide travel to this country and maintenance for two years for imperiled scholars have been made either to the New School or to other interested institutions.
>
> In the case of those scholars assigned to the New School, only temporary placement is involved, and it is expected that

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

they will find permanent posts elsewhere, either in this country or abroad. Assisting in this task of permanent placement is the Emergency Committee in Aid of Displaced Foreign Scholars, which, under the leadership of Dr. Stephan Duggan, acts as an important clearinghouse on the subject.

During 1940, on behalf of these refugee scholars, The Rockefeller Foundation made fifty-six grants totaling $266,350. Of these, forty-five were made to the New School and eleven to other institutions.

Other agencies in addition to those mentioned by Mr. Fosdick have participated in the rescue program, notably the Kosciuszko Foundation, the Scandinavian-American Foundation, the Oberlaender Trust, and the Emergency Committee in Aid of Displaced Medical Scientists. Individual donors have also contributed. And, since Mr. Fosdick's report was made, the number of grants from The Rockefeller Foundation and other participants has been increased.

For each man brought over, employment was to be assured for two years, at the end of which he could be reasonably expected to find a permanent place in American life. The fundamental criteria of selection were two: scientific merit and promise of a productive future as a teacher. The Refugee Scholars Fund considered the names of more than a thousand Europeans, consulted more than a thousand American professors in the process of selection. Some appointees languished for months in concentration camps. Some waited in the wretched shadow-world of a European "free zone" for exit permits, transit visas, steamship tickets or (especially since the adoption of rigid new visa regulations on July 1st, 1941) American immigration certificates. Some came via Bombay, Rio de Janeiro or Vladivostok. One was on the "Winnepeg" when the Dutch seized it near Martinique, and spent six months in Trinidad before he could fly to Florida. One was lost when the "City of Benares" was sunk by a U-boat. One, a Dutchman, died in a German camp; another, a Russian, died in a Vichy camp; a third, a Frenchman, has been shot by the Nazis in Paris. Of the hundred scholars selected, forty are still in Europe.

The sixty who are here typify the entire group. Each is a master, a productive scholar, an able teacher. Among them are French, Belgians, Germans, Austrians, Czechs and Poles. There are Catholics, Protestants and Jews. Economists, sociologists, anthropologists, jurists, historians, philosophers, philologists, physicists, biologists, chemists, psychologists, physiologists, musicologists, architects and artists—all are numbered in their ranks.

Already a bibliography of the American publications of this group shows numerous contributions to our scientific journals. Henri Gregoire has founded a scholarly magazine, *Byzantion*; Georges Gurvitch another, the *Journal of Legal and Political Sociology*. Dr. Gurvitch has also published (Dean Roscoe Pound wrote the preface) an important contribution to American jurisprudential thought, the first American book by a Refugee Scholars Fund professor.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Other books by some of these men will appear soon. American scholars have hailed their vital new colleagues, invited many of them to address their congresses, felicitated their sponsors. "Future historians of American scholarship," writes Professor Robert Herndon Fite of Columbia University in a letter to the Refugee Scholars Fund which is typical of many received, "will record this as one of the very bright pages in its history."

And, short as the time has been since the first man arrived in October 1940, American universities have, with the friendly competitiveness which is the lifeblood of academic organization, taken from the New School for Social Research some of its new talents. Yale chose Gustave Cohen, great medievalist of the Sorbonne; Minnesota, Michael Laskowski, brilliant young Polish biochemist, whose nutritional researches will be financed by General Mills, Inc.; Fordham, Dietrich von Hildebrand, the Catholic anti-Nazi philosopher, whom von Papen called his worst obstacle in Vienna; Hartford Theological Seminary, Karl Loewith, German religious philosopher who spent years in Japan, acquiring a wealth of valuable information about that country; the Fletcher School of Diplomacy, Leo Gross, able young Austrian international jurist; Johns Hopkins, Boris Ephrussi, French geneticist; Michigan, Alexander Turyn, renowned Polish philologist; the Medical College of the University of Vermont, Julien Maes, American-trained hope of Belgian physiology; Claremont, Marcel Barzin, Belgian philosopher; Lehigh, André Weil, French mathematician.

One might extend this list, but let us rather turn to another immediate result. One of the new refugees, following in the footsteps of men like Gerhard Colm, whom the United States Bureau of the Budget drafted out of the University in Exile, has become a consultant to the Federal Government in the work of counteracting Nazi radio propaganda. Another is consultant to the Office of Price Administration. The War Department Waterways Experiment Station at Vicksburg has expressed interest in the statistical analyses of flood-flow problems recently published by Emil J. Gumbel. Claude Levi-Strauss, one of the few people who has lived among the Indian tribes of Central Brazil, has prepared several studies for government bodies. The War Production Board is utilizing a study of the Nazi "bits and parts" policy prepared with the aid of Adolph Lowe, another newcomer. Jean Benoit-Levy is serving as consultant on educational films related to the war effort.

Dr. Fosdick in his 1941 *Review* mentions another way in which refugees are helping the United States in a matter of military importance:

> In view of the shortage of qualified Americans, it is fortunate that among European refugee scholars now in the United States are several authorities in the little-known tongues of the Far East.

To teach these languages, The Rockefeller Foundation last year gave

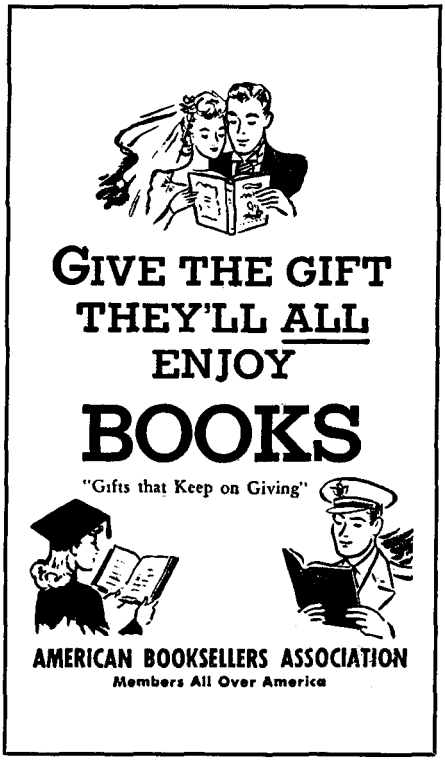
LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

$100,000 to the American Council of Learned Societies.

Another result is the establishment of the Ecole Libre des Hautes Etudes, affiliated with the New School for Social Research, with a faculty including, among other distinguished scholars, three professors each from the Sorbonne, the Law Faculty of the University of Paris, and the Collège de France, under the leadership of Henri Focillon and—until his death in April—Nobel prize-winner Jean Perrin. The Ecole is calculated to appeal to Latin-Americans who will come to New York to obtain that education in their traditional "culture tongue" which otherwise they could get only from the poisoned springs of Vichy. Dean Pablo F. Lavin of the University of Havana, who discussed the plan with the French scholars at an early stage, has expressed the belief that this Institute will be a mighty factor in advancing hemisphere cultural solidarity.

Thus has the tradition of centuries and the policy of Section IV (d) begun to justify itself anew. The future of this program is bright with promise. Not a few of the scholars invited are still abroad, including men like Ervand Kogbetliantz, whom Lehigh University wants for geo-physical work on oil; Emil Heitz, whom the University of Missouri finds practically indispensable to the continuation of its eugenics research; Paul Langevin, greatest living French physicist and expert on submarine warfare; Jean Wahl, the Sorbonne's first philosopher, who made American thought respected in the academies of Europe; Alfredo Mendizabal, the great liberal Spanish Catholic pedagogue; Gilbert Boris, a leading authority on West African languages.

The invitations have gone out, the travel money is available, work awaits the scholars here. If these men, now awaiting American visas, are still able to board a ship, rich and varied, indeed, will be the inventory of what this country gains by following in a time of great crisis, great need, and great opportunity, a policy which is as sound an expression of statecraft as it is of the fraternity of scholars and scientists.



LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Discussion

Reflective Commitment Attainable by Few

To the Editor:

Theodore M. Greene has spoken through your pages to the few, possibly 6,000, "In Praise of Reflective Commitment." Very few of those few will disagree with Mr. Greene. Very few people anywhere could. This problem he has raised and "formulated" is, as he admits frankly at the outset, "frequently sensed" by us all, and any problem that once has been so sensed becomes understood immediately it is brought into focus by as clear an analysis as is his. And yet I remain as bewildered as ever.

I remain so because I believe that this ideal of Mr. Greene's is possible only for so very few of us, and because I believe too that most American scholars, educators and parents are unwilling to carry over the commitment part of their reflections into action, into the day-to-day life of family, state, school and church.

Reflective commitment in college today is possible only apart from the set curriculum, possible only for those who have somewhere within them a spark of curiosity or of wonder which makes them feel that the determination of values is in the last analysis of more fundamental importance than the setting forth of facts. It is the plain truth that within the limits of the regular undergraduate program there is scarcely any opportunity for the beginning of reflection on anything. There are so many facts to learn that there is no time left for their evaluation.

And this condition, for that is what it is, is carried over into later life. Why is it that such a magazine as THE AMERICAN SCHOLAR has so small a circulation? Because the pace of our modern life allows no time for that reflection so vital to a reasoned commitment. Any job we go into on leaving college demands our full energies, and if, as is very naturally apt to be the case, we are beginning to bring up families too, our "spare time" is unsparable. We are driven to accept a pragmatic philosophy which takes no heed for the morrow not out of faith but out of the sheerest necessity. Growing up in the world of today is not a process conducive to deep thought; it is more likely to push us onward in a series of unpremeditated, and occasionally desperate, actions.

And so but few will ever hear of Mr. Greene's article, fewer yet will read it, and very few indeed will act on it. That is discouraging and, as I have said, bewildering. Why do these conditions persist? All join in praise of reflective commitment, but no one will go to any trouble to make it possible. And, with all respect to Mr. Greene, one cannot make any very notable progress by delivering Phi Beta Kappa addresses one or two days before commencement.

I am a very young man and I have a good deal of reflecting yet to do before I make my final commitments, but I very earnestly believe that the leaders of American thought and civilization, of American homes, schools, churches, and of the American state, must awake to the realization that they alone can give to our nation this essential opportunity to think before it acts. We are now at war fighting for our very existence, and for a something greater that is but vaguely intuited by most of us. That greater something must be made clear; it must be made clear by those who up to now have been content to mumble platitudes and to utter timeworn phrases. "Our profound indebtedness to our Western heritage, Hellenic and Roman on the one hand, Hebraic and Christian on the other" must be taught us anew. The leaders who seek to guide us must come to understand that *Finis Origine Pendet*—as the motto of a great American school has it. They must be willing to live out as well as to think out their commitments.

I am convinced that most American leaders are guilty of a fatal pussyfooting. They are forever handing out the parts, but will never go so far as to tell us how they are to be assembled. They give us the facts of economics, government, psychology, history, philosophy; and most men can tell them when Columbus sailed the ocean blue. But let them ask what that trip meant, what Copernicus started, what Jesus started. Let them ask what these things mean to us today. Will they get an answer, any answer at all? Probably not. Probably not, because they have been content in the belief that the average man knows what to do with a fact when he has it.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

They have said, "Here are the facts. Make of them what you will or can." They have steadfastly refused to risk interpretation or anything resembling that horror of horrors, the "value judgment." They have let our youth drift, and have given them no knowledge of navigation or of anchorages. They have in sober truth done their level best by their very own example to discourage reflective commitment. It is high time they took action and dared to speak what they know and what they believe. They must lead the way. They must dare to reaffirm the basic beliefs and faiths that have made us what we are. They must tell our youth of the truths by which other men have lived. Mr. Greene says we must "realize our humanity and save our souls in a time of crisis." Agreed, but our leaders first must make the existence of humanity and of souls as real as is the theory of evolution or a law of thermodynamics. They must teach first things first, and let it be known that facts and the sciences that reveal and clarify them are but the expert means. They must let youth know that it must not only face facts but must judge facts, and that its real job is to answer the question: "What ends for these means?"

I say that not only must they praise reflective commitment; they must work to make it possible.

JOHN H. WARE, JR.,
Marion, Massachusetts

Reflective Commitment: Ideal for All

To the Editor:

I welcome the opportunity to comment on Mr. Ware's thoughtful letter.

There is justice in his lament. Reflective commitment is indeed all too rare; many of our leaders do lack wisdom and resolution; formal education does not foster reflective commitment as it might, and should; practical necessities do tend to drive us into unpremeditated action; Phi Beta Kappa addresses will not save the world. I share Mr. Ware's anxiety, and I am not surprised that he is bewildered and dismayed.

Furthermore, recent events may well have intensified his anxiety and increased his bewilderment. As a nation, we are, in one respect, in a healthier state of mind than we were six months ago. Pearl Harbor has roused us finally from our lethargy. We have committed ourselves at last to pay whatever price may be necessary to win this war. We are also, as a nation, striving to find the best means to achieve this immediate end. But the very magnitude of this effort inclines us to postpone serious reflection concerning more ultimate objectives. We are not thinking sufficiently about the basic values which alone can make democracy worth fighting for. Witness, to cite a single instance of our failure, the alarming exodus of college and university students out of those liberal studies which concern themselves specifically with intrinsic human values —out of philosophy, religion, the arts and literatures, and into courses which, though not strictly "defense" courses, are judged to be more immediately "practical." The war is emphasizing microscopic, not telescopic vision; we are finding it very hard to consider seriously the nature and conditions of a just peace.

I should be the last, therefore, to minimize the gravity of the present scene. Yet there are, I believe, certain considerations which contribute to a sane perspective and justify some measure of hope and confidence:

1. Reflective commitment is an ideal which, by definition, finite mortals can never perfectly attain and can only approximate. A less lofty, and therefore a completely attainable, ideal would not perform its function as an ideal which, if valid at all, is equally valid for all men, and towards which all men can strive, however limited their intelligence, imagination and will. It is not, as Mr. Ware suggests, possible for some and impossible for others; no man can hope for perfect achievement, and no man, however humble his aptitudes, need fail completely. Realization of this fact will save us from unconsciously dividing all men into sheep and goats, and then deploring the scarcity of the sheep.

2. There is actually more reflective commitment, in all walks of life, than is at once apparent. There are a good many people, for example, whose religious beliefs are reasonably reflective. Thoughtful books on religion have been written and are still being written, and more and more people are studying these books. Similarly, formal education does not fail completely to promote reflective commitment. I have had long interviews with many dozens of students during the past month, and most of these students have given clear evidence of having benefited by their liberal studies; they have committed themselves to specific decisions in a remarkably reflective and mature manner. Some students and some teachers and administrators have lost their heads in the present crisis; none has been ideally wise; but many have kept their heads and their sense of proportion quite admirably. Finally,

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

consider the present functioning of our democracy. It is easy to detect gross inefficiency and inexcusable complacency in many quarters. But has not our democratic society exhibited a notable capacity for loyalty to certain basic ideals, such as that of freedom, and for personal sacrifice for the common good?

3. Does not allegiance to the ideal of reflective commitment imply a social philosophy according to which power ultimately resides in, and flows from, the people and not the leaders? It is we who are ultimately responsible for our individual and corporate welfare, not those to whom we have temporarily delegated authority. Our leaders are those whom we have decided to follow; their failure is at least in part our failure to select our leaders more wisely. In short, we have declined to put our faith in utopias by fiat; we have preferred to proceed more slowly, to attempt, bit by bit, by education and persuasion, to increase our corporate wisdom and social solidarity. This policy calls for patience—not resignation or complacency, but patience and perspective. We still have *very* far to go. We are still a rather unreflective and undisciplined nation, and we are correspondingly weak. But we have also come a long way from primitive animism, tribal fanaticism and totalitarian tyranny.

These considerations would seem to me to dictate hope and courage, rather than bewilderment and despair. I am not discouraged because I cannot reach a very large audience; on the contrary, I am greatly encouraged by the knowledge that I have, in Mr. Ware, at least one staunch ally. Let him keep on with the good fight. He will make more allies, as will I, and if we keep at it hard enough, courageously enough, humbly enough, we can, between us, accomplish a great deal. But whatever our accomplishment, this is the way we have chosen to live our lives.

THEODORE M. GREENE,
Princeton, N. J.

Vested Interests, Beware!

To the Editor:

I would like your publication better if it was less like *The Atlantic Monthly* and more like *The Antioch Review*—much less verbosity, less tenderness for vested interests and sacred cows. You are not dependent on advertising so tell the truth, shame the devil and let the heathen rage!

AUSTIN JOHNSON,
Tulsa, Okla.

Books of Lasting Value

I. The Dictionary of Philosophy
Edited by DAGOBERT D. RUNES $6.00
An invaluable reference book for the student of human cultural development, embracing all major schools and theories of philosophy, philosophy of law, religious philosophy, logic, epistemology, ethics, metaphysics, Chinese, Jewish and Hindu philosophy.

II. Sociology of Law
By GEORGES GURVITCH With a Preface by Roscoe Pound $3.75
The first complete study of the problems of the sociology of law in all its aspects.

III. Theism and Cosmology
By JOHN LAIRD $3.50
The Gifford Lectures given by the eminent British philosopher.

IV. Who's Who in Philosophy
The first complete directory and bibliography of all living Anglo-American philosophers. $4.50

V. God Is My Fuehrer
By Pastor MARTIN NIEMOELLER $2.75
Being his last 28 sermons. With a preface by Thomas Mann.

VI. From Copernicus to Einstein
By HANS REICHENBACH $2.00
A simple but scientific history of the ideas and discoveries that have led to the formulation of the theory of relativity.

PHILOSOPHICAL LIBRARY
15 East 40th Street, New York, N. Y.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

UNIVERSITY OF CINCINNATI

ALLEGORY IN THE FRENCH HEROIC POEM OF THE SEVENTEENTH CENTURY, *by* ARCHIMEDE MARNI, 211 pp. 1936 $2.50

THE BONDMAN, *by* PHILIP MASSINGER, *edited by* BENJAMIN TOWNLEY SPENCER, 266 pp. 1932 $3.00

CLASSICAL MYTHOLOGY IN THE PLAYS, MASQUES, and POEMS OF BEN JONSON, *by* CHARLES FRANCIS WHEELER, 220 pp. 1938 $3.50

GOD IN GREEK PHILOSOPHY TO THE TIME OF SOCRATES, *by* ROY KENNETH HACK, 160 pp. 1931 $3.00

LUDWIG TIECK AND ENGLAND, *by* EDWIN H. ZEYDEL, 264 pp. 1931 $2.75

LUDWIG TIECK, THE GERMAN ROMANTICIST, *by* EDWIN H. ZEYDEL, 422 pp. 1935 o.p.

REPETITION IN SHAKESPEARE'S PLAYS, *by* PAUL V. KREIDER, 314 pp. 1941 $3.50

SEVENTEENTH CENTURY STUDIES, *edited by* ROBERT SHAFER (*Philip Massinger, by* BENJAMIN TOWNLEY SPENCER; *John Ford, by* MARY EDITH COCHNOWER; *Samuel Butler, by* DAN GIBSON, JR.), 335 pp. 1933 $3.50

SEVENTEENTH CENTURY STUDIES: SECOND SERIES, *edited by* ROBERT SHAFER (*Francis Osborn's "Advice to a Son," by* SIEGMUND A. E. BETZ; *Dryden's Plays: A Study in Ideas, by* MILDRED E. HARTSOCK; *Jeremy Collier's Essays, by* KATHLEEN RESSLER), 295 pp. 1937 $3.50

HORACE WALPOLE: GARDENIST, *by* ISABEL WAKELIN URBAN CHASE In Press

PUBLISHED BY

PRINCETON UNIVERSITY PRESS

PRINCETON, NEW JERSEY

For the

UNIVERSITY OF CINCINNATI

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

About Our Authors

Double quotation marks usually indicate passages taken directly from autobiographical letters requested from the author.

In 1940 MARJORIE HOPE NICOLSON, then dean of Smith College, became president of the Phi Beta Kappa Society—the first woman to hold that office. In 1941 she became professor of English in the Graduate School at Columbia University—the first woman to hold such an appointment. She has served as a member of the Committee on Awards of the Guggenheim Foundation; her several books include *The Microscope and English Imagination* and *A World in the Moon*; she is one of the goodly company of those who read and forget mystery stories; since 1940 she has been THE AMERICAN SCHOLAR's consulting editor.

Throughout CLARENCE BERDAHL's 21 years as a member of the political science staff at the University of Illinois his major work has been divided among the fields of American government, international organization and political parties. In fact he remarks that he is "interested as a scholar particularly in the relations of the United States to the League of Nations; otherwise in politics and political parties." His books (of which *The Policy of the United States with respect to the League of Nations* is especially pertinent to his present essay), the courses he teaches, his professional affiliations, reflect the wide area of his study. His several summers spent in Europe, one of them as a member of the Carnegie Endowment European Seminar, were followed in 1931-32 by eight months at Geneva "studying and observing the League of Nations and especially American Relations with the League." In January 1932 he delivered a series of lectures at *L'Institut Universitaire des Hautes Etudes Internationales* at Geneva. . . . From its inception he has been a member of the Commission to study the Organization of Peace.

After he graduated from the Harvard Law School ZECHARIAH CHAFEE, JR. spent three active years at the Rhode Island Bar. Although subsequent events have thrown him into problems of freedom of speech his chief professional interest had always been law reform. He reports, further: "In 1916 I joined the Faculty of Harvard Law School and have been teaching there ever since. I have written a good many books and articles on technical law. During the last war one of my courses started me investigating the scope of the First Amendment. A popular article which I wrote then on freedom of speech in war time led to a book in 1920, now superseded by my *Free Speech in the United States* (1941). . . . I have no qualifications to write on international affairs except an ability to read. However, I am glad to have written this article on international utopias because the departure of so many of my students into the armed forces fills me with shame that I did so little after the last war to prevent the repetition of that calamity. Our national policy during the last two decades has been as follows: 'We will not be represented at Geneva. We will not be represented at the Hague. We will not take an effective part in any economic conference. But there is one place where we will be represented and that is the battlefields.' I want to do my bit to bring forth a different national ideal."

Before newspapers thought of adding science writers to their staffs, DAVID DIETZ, still in college, determined to become such a writer. Accordingly he took as many courses from as wide a variety of sciences as Western Reserve University would allow. He proceeded to create, and for the past 21 years has filled, the post of science editor for the Scripps-Howard newspapers. He has also been a lecturer in general science at Western Reserve since 1927, was awarded the Pulitzer Prize in Journalism in 1937 and was a prime mover and first president of the National Association of Science Writers—an organization which aims "to foster the dissemination of accurate scientific knowledge by the press of the nation in cooperation with scientific organizations and individual scientists." To many, many readers, familiar with his daily syndicated science column, his contributions to a variety of periodicals and his two books (*The Story of Science* and *Medical Magic*), introduction of any kind to this dean of science writers is superfluous.

"I started as a lithographer's apprentice," says B. W. HUEBSCH, vice-president of the Viking Press, "hoped to become a musician and found myself a book publisher at an early age. Like everything that happened to me it was the result of chance, not of conscious desire. I had to learn my business after I was in it; that handicap added to my zeal and in time I came to respect my vocation as a worthy way of life. By the same token I became aware of how a noble instrument can be misused. . . . My conservative acquaintances suspect me of unsound views; those of the left wing

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

are sure that I have no fixed principles. Both are right. I am a little like a pendulum but more like Mahomet's coffin. In spite of shortcomings I built up a fortune—of friends."

KURT KOFFKA came to the United States from the University of Giessen in 1928 and from that time to his death in 1941 was a member of the faculty of Smith College, although his residence at Smith College was interrupted by two appointments as visiting professor—once at Cornell University and once at the University of Wisconsin. For five years he was William Allan Neilson Research Professor at Smith. . . . President Neilson comments about him: "Kurt Koffka was a member of the trio (with Wolfgang Koehler of Swarthmore and Max Wertheimer of the New School for Social Research) who founded the Gestalt School of psychology. His best-known work, *The Growth of the Mind*, has been translated into Spanish, Chinese, Japanese and Russian. The present article was the last thing he wrote before his death. It illustrates the wide range of Koffka's interests and shows the applicability of the psychological methods with which his name is associated to fields outside the usual technical boundaries of psychology."

Last summer, upon the recommendation of Robert Frost, CHARLES EDWARD EATON was awarded a fellowship to the Bread Loaf Writers' Conference. This year he is teaching English and creative writing at the University of Missouri, and has been hard at work on a volume of verse, *The Bright Plain.*

I. BERNARD COHEN is instructor in physics at the Jefferson Physical Laboratory, Harvard. Soon after he entered Harvard's Graduate School of Arts and Sciences he was appointed Fellow of the Carnegie Institution of Washington in the history of science. As yet he has had little time to write, but he edited and in 1941 brought out the only edition of Benjamin Franklin's book on electricity to be issued since Franklin's death and the first to be published in America. His dominant interest in the history of science, in particular the rise of modern physics, is tempered by eclectic and catholic tastes: "an unbounding passion for Spanish gipsy music; the mystical poetry of San Juan de la Cruz, Fray Luis de León and Santa Teresa de Jesús; and Spanish art and architecture, especially the ironwork and woodcarving of the Gothic and Visigothic periods . . . in English poetry Skelton, Donne, Byron and the Herberts as well as the 'dunce' and the 'bone'—Sir Richard Blackmore and Erasmus Darwin."

GEORGE FORT MILTON, for years president and editor of the *Chattanooga News*, has been known for almost two decades as one of the most liberal and progressive of southern newspapermen. With the publication of his books, *The Age of Hate: Andrew Johnson and the Radicals* and *Conflict: The American Civil War*, he established for himself a parallel reputation as historian. He is now, when he can take time from his work as a Consultant for the National Resources Planning Board and for the Treasury Department, getting ready a book on Abraham Lincoln and the Fifth Column of Civil War days. Participation in the making of history is also within his domain: he has served as chairman of the Southern Committee to Study Lynching; in 1936 he was a Special Adviser to the Delegation of the United States to the Buenos Aires Peace Conference; and in 1937-38 he was a Special Assistant to the Secretary of State.

HUDSON HOAGLAND writes that his scientific background has been a checkered one. "After graduating from Columbia and taking a Master of Science degree in chemical engineering at Harvard I started my professional career as instructor in physiology and tutor in biology at Harvard. Following a year in the physiological laboratories at Cambridge University I came to Clark University in 1931 as professor of general physiology and director of the physiological laboratories. My work right now is concerned with a hush-hush problem in aviation physiology and the brain wave research is in abeyance."

CHRISTIAN GAUSS, very wise man, has been a member of the editorial board of THE AMERICAN SCHOLAR since it was founded. Attribute to him many of the virtues of the quarterly and do not lay its blemishes at his door. Since 1907 he has been professor of modern languages at Princeton and since 1925 Dean of the College. He is also associate editor of the *Journal of Education* and trustee of the Princeton University Press. When those who would lay claims on his time give him some of the peace he craves he spends his summers in writing . . . He has of course received public honors; he is likewise held in private honor by an unguessed number of men and women indebted to him for kindness and wisdom.

HERBERT SOLOW was an assistant editor of the Encyclopaedia of the Social Sciences, has had much journalistic experience here and abroad, and is now assistant to the director of the New School for Social Research, Alvin Johnson.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

SPECIAL LEATHER FOR MEMBERS OF PHI BETA KAPPA

Fine leather makes excellent gifts for friends in the Service or for others in defense or civilian occupations.

DELICATE BABY CALF FOR FINE WOMEN'S GIFTS

Soft and smooth as the inside of a kitten's ear, baby calf leather is fashioned into beautiful gifts for women.

The baby calf leather is characterized by very fine stitching, hand turned edges and fine moiré silk lining and represents the finest values offered.

The color for all individual orders is a beautiful suntan beige that blends with all other accessories.

Featured articles of baby calf include: zipper compacts, mysterious billfold with change purse, tiny billfold with change purse, purse kit and change purse with compartments.

See Page 24 of 1942 Balfour Blue Book.

HARDY CALIFORNIA SADDLE LEATHER FOR MEN

The fine billfolds and other gifts shown in the Blue Book feature genuine California saddle leather.

In this real top grain leather, healed grub holes, branding iron marks, scratches, wrinkles and scars are natural. They are never found in imitation leathers.

This leather will take on a rich glossy nut-brown shade with use. Unlike many other fine leathers, these items may be easily cleaned with any good grade of saddle soap.

Featured articles include: Photo frames, billfolds, key cases, comb cases and letter cases.

See page 25 of 1942 Balfour Blue Book.

OTHER FINE LEATHERS

Suntan autograph cowhide in both light and deeper tone, goat skin and other leathers are shown on Pages 42 and 43 of the Balfour Blue Book featuring men's billfolds, women's billfolds, key cases, cigarette cases, purses and other gifts which are suitable for presentation to individuals going into the Service or for awards or personal accessories.

Individual's name may be gold stamped on any of these leather items for permanent identification.

☆ ☆ ☆

Write for your own personal copy of the

BALFOUR BLUE BOOK

Mailed free for the asking — 1942 edition

L. G. BALFOUR COMPANY

FACTORIES ☆ ☆ ☆ ATTLEBORO, MASSACHUSETTS

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

IN addition to the capable production of novels and other literary works in large editions for publishers, we are prepared to design and execute in an individual manner: Genealogies, Catalogues of Collections, and other privately printed Books.

The Haddon Craftsmen
Camden, New Jersey

New York Office; 393 Seventh Avenue

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED